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ABSTRACT

This manual represents part of the results of the first curriculum development workshop organized by the World Confederation of Organizations of the Teaching Profession for members of the African Teachers' Association of South Africa. This "train-the-trainers" workshop had the goals of: critical analysis of the prevailing social situations in South Africa and their implications for education; review of the major trends in educational and curricular reform in independent African states; acquisition of theoretical knowledge and practical skills in the techniques of curriculum development and implementation; and development of participant interest in curriculum work to enable them to carry out field-based, curriculum-related activity on their own. The first section contains two background papers that served as tools for training in situational analysis during the workshop. The second section presents summaries of discussions regarding basic principles of curriculum development. Four appendices are included: a 30-item achievement test for workshop participants/manual readers; six sample curriculum guides, a list of workshop participants, and answers to the achievement test. (CB)

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A Curriculum Developer's Manual

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C U R R I C U L U M D E V E L O P E R ' S M A N U A L

Produced for the Curriculum Workers of the
African Teachers' Association of South Africa

WORLD CONFEDERATION OF ORGANISATIONS
OF THE TEACHING PROFESSION (WCOTP)

5, Avenue du Moulin, 1110 Morges, Switzerland

1987

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INTRODUCTION

This manual represents part of the results of the first curriculum development workshop organised by WCOTP for members of ATASA (the African Teachers' Association of South Africa) held at the National Curriculum Development Centre (NCC), Manzini, Swaziland from 16 to 27 March 1987.

Conceived as part and parcel of the Alternative Education concept of ATASA, the activity was a train-the-trainers workshop aimed at:

- analysing critically the prevailing social situations in South Africa and its implications for education, with particular emphasis on the future;
- reviewing the major trends in educational and curricula reform in independent African States and their possible implications for the future of education in South Africa;
- acquiring theoretical knowledge and practical skills in the techniques of curriculum development and implementation; and
- getting participants more deeply interested in curriculum work, to enable them to carry out some field-based, curriculum-related activity on their own.

It turned out to be an intensive workshop at which people learnt to work in teams, to work really hard, and to translate theory into practice as much as possible. For the Workshop Coordinator, it was also a wonderful learning experience, being exposed to educational happenings in South Africa, having another opportunity to learn to teach curriculum, and broadening the horizon earlier acquired in the process of working on curriculum in Africa.

Section A of the manual contains the background papers, which also served as tools for training in situational analysis during the workshop. The first of the two papers in this section was initially written by Alice Gqibitole, ATASA's Curriculum Projects Coordinator. It was then discussed under various headings in four working groups and then enriched by a sub-committee of four participants. The second paper was presented in outline form by the Workshop Coordinator and was subsequently discussed and summarised in four discussion groups. After this, a committee of three volunteered to put it into its present, more flowing form.

Section B is a summary of the discussions on each of the topics discussed under the general heading "Basic

Principles of Curriculum Development". Again, the Coordinator introduced discusssions on each topic from a set of outline notes. At the end of each discussion session, groups of participants undertook to use the notes they had taken as a basis for producing readable versions of each paper. There was therefore training in writing built into the workshop and this appears to have yielded some useful results.

Practical group work went on, along with individual exercises, throughout the duration of the workshop. The results of group work are in the form of practical guidelines appended to this manual. Also in the appendix is a 30-item test taken by participants on the last day of the workshop. In its present form, the test can help the reader decide the extent to which he has mastered the content of the manual.

The manual was intended as a guide in the field-work which participants were expected to engage in as a follow-up to the Manzini workshop. It can, however, also be of value to students of curriculum development, whether in teacher training colleges, in other institutions of learning, or in curriculum centres. Moreover, since its compilers (the participants) are likely to train other curriculum workers in their own country, the manual becomes a tool for propagating the Alternative Education concept of ATASA and a guide on how to translate this philosophy into concrete activities and educational materials.

Two chapters of the manual (chapters VIII and XI) were the results of symposia sessions within the workshop. In one, teachers saw how a curriculum centre works. In the second, even the participants contributed, to prove that the teacher can and does play a meaningful role in curriculum development. This is an outcome of the workshop which seems most important: teachers realising that they too can do curriculum.

Putting the manual in readable form has been the arduous task of Alice Gqibitole (who helped me in coordinating all the activities), and Nompumelelo Nala. All the participants at the workshop made considerable input into the content of the manual. They all joined in note-taking, discussions, and the long series of "You'll have to try again!" My sincere gratitude goes to all of them.

PAI OBANYA
Workshop Coordinator

April 1987

SECTION A : BACKGROUND PAPERS

I

THE SOUTH AFRICAN SITUATION AND ITS IMPLICATIONS FOR EDUCTION

Evolution of Education in South Africa

Before the arrival of the White man in South Africa the Black man had his own form of education, which was largely informal in modes of operation. The child was brought up by the mother up to the weaning age. After this the child was taken care of by members of the extended family, e.g., grannies and aunts. From the age of about six the child was looked after by members of the peer group. The children went through their daily chores of traditional life, with the girls following the mother's trend and the boys following the father's. When the child reached adolescence he received more formal forms of education through initiation schools. Different types of education were given to boys and girls with the aim of instilling endurance, discipline and the skills necessary for taking care of the home and for participation in community life.

The arrival of the missionaries had its impact on the value of family education, which had all along been sufficient to prepare the child for life in his environment. People were referred to as heathens and their initiation schools labelled "unchristian". This led to the destruction of cultural structures of the Blacks. The philosophy of life and life style of the Blacks were radically affected with the imposition of Christian values.

Unfortunately, western ideas or life patterns were often diametrically opposed to existing Black people's point of view. The results were that the traditions, customs and norms which constitute the social values of Black people were destroyed. Missionary bodies established institutions which were independent of the government, in the sense that they were financed by the church. In these schools children were introduced to the skills of reading and writing. The black child also learnt to be subservient, in order to be used for cheap labour.

The coming into power of the National Party in South Africa crystallized the policy of apartheid (or separate development) that resulted in the Bantu Education Act of 1953. This was pioneered by the Eisleen commission and championed by Dr. H.F.Verwoed's government. Bantu Education was to be separated from the mainstream of education in the Republic of South Africa. The Black people protested against its implementation. Many teachers resigned and many parents withdrew their children from schools.

The Bantu Education Act stated clearly that Black children should be taught in their native languages from the first to the last year of junior primary education. From the first year of senior primary education the two official languages (English and Afrikaans) were to be used, on a 50 - 50 basis, as media of instruction.

This practice led to the eruption of riots in 1976, especially in Soweto. The rioting spread to other parts of the country and the unrest that followed led to a radical re-thinking of the position of Black education. Then came the 1979 act, which repeated some of the laws in the Bantu Education Act, e.g. the abolition of school boards and introduction of school committees and governing councils.

During the period 1980 - 1981 the De Lange commission conducted an investigation into the provision of education in South Africa, in an attempt to come up with solutions to the education problem. This commission came up with recommendations such as freedom of association, one education ministry for all races in the Republic and greater parent involvement in education.

Government's response to this report was a White Paper of 1983, which accepted the recommendations of the De Lange commission, but in principle only.

Current Policies and Practices

Since 1985, a state of emergency has been declared thrice and a number of schools have been closed. Political slogans and all organisations that criticise the government of South Africa have been banned. The leaders of black political organisations have been detained.

The National Education Crisis Committee, which champions the cause of black education, has also been banned. Students' Representative Councils have been banned and 'unauthorised people' are not allowed to enter school premises without written permission from the Department of Education and Training's regional offices.

A regulation that prevents pupils of the age of 19 and above from attending higher primary schools, and those over 25 years from attending high schools was gazetted in 1985.

The Department of Education and Training requires pupils to register at their schools annually and to carry identity cards on school premises.

In addition, the South African Defence Force (SADF) has been posted in all school premises, much against the will of black parents and pupils.

In a statement issued on 9 September 1986 Brand Fourie (Director General, Education and Training) announced the closure of 20 schools in the Eastern Cape. He also stated that the Department of Education and Training had reluctantly concluded that the closure of more schools until 31 December 1986 had become unavoidable due to a situation of extremely low and sporadic attendance and serious disruption of the normal education programme. These schools are in Natal, the East Rand and Soweto.

The Department of Education and Training and the Department of Education and Culture (for Coloureds) allow white teachers to teach in schools under them. Black teachers are not however allowed to teach at white schools.

Also, the attitude of white teachers at schools of the DET and DEC, towards pupils and towards their work, leaves much to be desired. For example, they refer to pupils as 'kaffirs' when their work is not up to the standard expected. They are also not interested in extra-mural activities.

All these policies and practicies have precipitated a crisis in black education and the need for alternative education has become crucial.

There have been reforms brought about by various pressure groups seeking change in the Republic. Up till now the so-called 'reforms' or 'achievements' effected have been minimal, ineffective, patchwork and a mere papering over holes.
All sections of black communities have verbally and by action demonstrated their rejection of an educational system that only prepares them to be 'underdogs'.
From 1980 until 1985 there was free supply of textbooks at a ratio of two pupils to one text book and only two subjects were provided for i.e. General Science and Geography. From 1986 there has been free supply of stationery to all pupils. However, the quality of the stationery is not suitable for the various subjects and levels.

To supplement inferior courses offered for training of teachers by DET, crash courses, which have improved the qualifications of teachers, have been offered at institutions such as Vista.

A number of promotion posts have been created e.g. for Deputy Principals, Heads of Department in schools that qualify for these posts. All these have been 'rewards' to some inspectors, principals and teachers.

Since 1983 there has been a steady progress in the building of schools throughout the Republic. However, these buildings are stereo-typed and do not satisfy the needs of the community.

Grants are given to farmers to build schools and teachers' quarters on their farms. The purpose of this exercise is to draw teachers to teach in farm schools and to keep black children on the farms as a source of cheap labour.

New non-teaching posts such as posts for handymen, cleaners, caretakers and clerks have been created in certain schools. This was done for the purpose of protecting and keeping the new buildings in urban areas as show-pieces, as similar posts are very few in the rural areas.

Achievements of ATASA in Particular

One of the greatest achievements of ATASA over the period of its existence was obtaining pension benefits for black teachers in the country. It took 13 years of hard bargaining to get black teachers on the pension fund. They began contributing towards a pension fund in April 1967. Before then, teachers retired with nothing to live on.

Teachers have an option to back-date their contributions to the 16th birthdate, even if they were not yet teaching then. All they need do is to write to the Department of Education requesting to backdate their pension contribution. It could be any date e.g. 16th, 18th, 21st, or 24th birthdate. The Department contributes R2,67 for every R1,00 a teacher contributes;

The second achievement was the accumulative leave of 12 days a year which can accumulate to a maximum of 180 days. Should a teacher not use his leave days, they would be paid for on retirement.

The third benefit is the 13th cheque which a teacher receives on his birthday month, provided he has completed 12 months in the service. Seventy percent of this cheque is deducted to stabilise the pension fund. Before 1967 all these benefits were enjoyed by white teachers only.

Other achievements of ATASA include:

- housing loans for black teachers; (the Government contributes sixty percent of the costs; the teacher pays the balance).

- permanency of married women teachers in the service;

- upgrading of salaries for teachers employed on farms. When the Government took schools from missionaries in 1954, a special salary scale was introduced for teachers on farms. ATASA succeeded in bringing these teachers in line with the rest of the teachers.

Education in the Republic of South Africa is, inspite of the achievements of ATASA and other pressure groups, still segregational. This segregation is based on the South African government policy of apartheid and lends itself to all kinds of inequalities, ranging from an inferior education system to inferior educational content that is carried in the textbooks used in black schools.

According to the policy of apartheid, which defies all educational philosophy and principles, Blacks are not entitled to the same educational exposure and opportunities as Whites. The education for Whites is highly charged with methods, systems and skills of sustaining White supremacy over Blacks. In all forms of educational opportunities whether formal, informal or non-formal, the Blacks receive the brainwashing experience of making them accept the position of servitude.

The control of black education is in the hands of the Department of Education and Training (DET), at the head of which is a Director-General. The deputy directors, planners, technical assistants, as well as administration officers at the head office of DET in Pretoria are Whites. The black communities are not involved in the decision-making machinery for black education.

Schools, colleges and universities are separate for each population group. The advocates of apartheid know this very well, and so they speak glibly about the death of apartheid in one breath, and stubbornly reject school integration in the next breath.

Educationists point out repeatedly that attendance at the same school from early childhood is the only cure for the prejudice of one population group against another. Acquaintances and friendships made during the days of childhood or youth are more lasting than those made during adulthood. South Africa's policies of separation deny her young people access to the kind of cement which will bind them together during adulthood. They are denied the opportunities to lay the foundations for an open society that is devoid of tribalism or racism or discrimination of one sort or another.

The division of education into 'general' and 'own' affairs is completely unethical, for this simply means the perpetuation of apartheid in education. Curriculum development for black education is in the hands of Department of Education and Training. Black communities have no representation at this level either.

After a 1972 conference in Swaziland, ATASA decided to involve itself in subject committees that were created by DET. The aim of this kind of involvement was to influence direction in the planning of content for black education. However, this exercise failed because the representation of

ATASA was confined to one or two members for each of the subject committees and mainly because a larger number of Departmental officials are mainly White.

The curriculum used in black education is not only an imposition by white DET officials over Blacks but also one that does not accomodate the needs and the daily activities of the black communities.

In an article in the Funda Forum of March 1986, L. Sebidi says "South Africans, like the rest of the world, are disenchanted with the traditional curriculum. The clarion call is for a system of education that would be responsible to the peculiarities of the South African socio-political, economic and cultural milieu". At this point, there is an urgent need for an alternative education.

The basic source of the unprecedented twists of the curriculum has been the several ideological outlooks; political and psychological attitudes towards the Blacks by the ruling parties.

The manner in which these attitudes is implanted is so subtly and skillfully planned that only the very careful watchdogs can make out what danger lies beneath the curriculum designed for Blacks.

Most textbooks used in black schools are written by Whites. A close examination of the textbooks used in black schools and white schools reveals that the textbooks used in black schools are inferior to those used in white schools in terms of content, approach to topics, illustrations, and lay-out. The language used in textbooks for black pupils is generally difficult. The writers of the textbooks do not seem to have consideration for English L2 learners' problems.

In 1979 the DET enforced the use of Afrikaans as a medium of instruction. As a result the Soweto students revolted against Bantu Education. This kind of reaction spread to all the provinces in the Republic.

The communities and students are demanding alternative education. It seems reasonable therefore that the teachers should be in the forefront and be actively and meaningfully involved in educational policy and curriculum development. A good number of black pupils have enrolled in private schools. The schools themselves now decide on which pupils to admit, since the promulgation on October 31 of Regulation R2281 Section 9 of the Private Schools Act 104 of 1986. However, this is no solution to the educational problems that face the black child, as the private schools can only take a limited number of black pupils at a very high cost which the average black parent cannot afford.

Although various black organisations, parents and pupils have opted for return to school, they have not forgotten their deeply felt misgivings about Government education. They are demonstrating goodwill which they hope will be reciprocated by the Government.

Towards an Alternative Way Out

The division of education into 'general' and 'own' affairs is completely unacceptable for this simply means the perpetuation of apartheid in education. What this country needs and is crying out for is the complete elimination of separation at all levels - local, regional and national. The best form of education is that which not only serves the individual but also the community and the nation. A system of education which enhances the financial and material well-being of the individual or group to the detriment of the community as a whole is harmful to the nation. We need to develop the kind of education which will inculcate in the individual a selfless love of community and country.

Government spokesmen often declare that they will not allow domination of one group by another. There must be power-sharing. The Government should not lay down conditions as to who may or may not come to the negotiating table. The leaders who have been elected according to apartheid structures which have been rejected by the black people cannot be regarded as genuine leaders.

Negotiating the future of South Africa with them is a futile exercise. The voting structures in the election of leaders must be such that the leaders are accepted as legitimate by the people as a whole. The election machine must not be discriminatory.

There must be complete integration in politics as in the economic and social life of the country.

Prominent among the areas to be given special attention are:

1. The Examination system which should include 0 - levels and A - levels.
   Research on examination systems of the world should be conducted in order to come up with what would suit us in South Africa.
   Doing away with one official language and remaining with two languages would improve pupil's mastery of language skills particularly at the lower levels.

2. Regrouping of schools according to age groups - as follows:

Sub A Std 1	-	Junior Primary
Std 2, 3 and 4	-	Senior Primary
Std 5, 6 and 7	-	Junior Secondary
Std 8, 9 and 10	-	Senior Secondary

3. Schooling should begin at the age of five at which pupils should be admitted to pre-school programmes.

4. There should be compulsory education for all children up to the age of 18. This will make provision for hundreds of children of school going age who roam the farms and cities. They are part of the change and need to be developed to the fullest potential.

5. The black people would like to see an educational philosophy which articulates their cultural and social values rather than have the white government impose its educational, social and cultural values on them.

6. It is also necessary to have highly qualified staff at colleges of education in order to produce well trained teachers. These teachers should be committed to their task.

7. A non-racial National Council of teachers should be formed. Once teachers have graduated from their colleges, they should become members of this council.

8. We need an educational system which will encourage creativity and originality in pupils. It is therefore crucial that the teacher-pupil ratio should be 1:25 to allow for individual attention.

9. Promotion of teachers to senior posts should be on merit.

10. Educational Councils that will handle education matters should be elected by communities.

11. Decentralization of education on a geographical basis would facilitate administration.

12. Principals should be consulted on matters such as purchase of stationery, as they know the needs of their pupils better than the Department of Education and Training. For example they know which books are suitable for subjects like Mathematics and Science.

13. All political detainees should either be charged or released, so that those who merit positions of leadership can be useful to the development of the education of their own people.

14. In order to build up an open society, it is important that education in the Republic of South Africa be diversified and broadly based, with information

> constantly fed into it from research and technological development so that the education thus provided may vibrate with life and develop human capacities. The probabilities for the development of such a system are greater if it is integrated so that the resources available for education are diverted into one channel and are used much more profitably than is the case where the systems of education are separate.

It is only when there is complete dismantling of apartheid and job reservation that the Republic of South Africa can be ready for a non-racial and democratic education in which the black communities will be meaningfully involved. It is only when the Blacks are accorded their human right to design the kind of education that articulates their aspirations that the search for appropriate solutions to their educational problems can be said to have realistically begun.

II

AN OVERVIEW OF EDUCATIONAL AND CURRICULA REFORMS IN AFRICA

The purpose of the remarks that follow is to provide further background material for the work reported in the main body of the present manual. We will, in more specific terms, attempt to:

- distinguish between innovation, reform, and adaptation;
- examine the educational state-of-affairs in Africa in 1960;
- outline the major areas of reform, innovation, adaptation;
- examine the major procedures for reform, highlighting major achievements and yet-to-be resolved problems; and
- draw appropriate lessons for future curriculum development work in South Africa.

Towards a Definition of Terms

Innovation, Reform, and Adaptation are related concepts and all of them are intended to bring about change. Change should not be effected for its own sake but with a view to responding to the changing needs of society.

Adaptation usually refers to borrowing what exists elsewhere and re-shaping it to meet one's needs. An example of borrowing would be seen in a situation in which South Africans study the conditions under which Kiswahili is used in education in Tanzania and then modifying the Tanzanian approach to suit her own linguistic realities.

Innovation involves doing something novel, though it is often difficult to determine the extent to which ideas and actions are completely new. A good example will be a situation in which South Africa intensifies the process of non-racial education. What would constitute an innovation here is the fact that it is being done in South Africa for the first time.

Reform is usually more all-embracing than the two other situations, though it could also embrace them. It usually refers to a total re-thinking of the system of education - its structure, its curriculum, its administration, its philosophy, etc. Reform can be either total or piece-meal (that is, one could change everything or just something at a single time).

African Education in the Early 1960s

The state of education at the time most African countries attained independence in 1960 can be reviewed in terms of its demography, its philosophy, its content, and its quality.

Demography is the science of populations (their distribution, age and sex characteristics, etc.). Applied to the school system, only about ten percent of children of primary school-age (continental average) was in school in 1960. There were a few examples, like Ghana, where some forty percent of the target population was in school. There was imbalance in enrolment in a number of ways.

A large proportion of girls were out of school and those who entered primary school did not continue long enough to become literate and numerate. Most of the schools were in urban areas, to the disadvantage of the rural areas which accounted for some ninety percent of the population. Transition from primary to secondary education was low and lower still from secondary to tertiary.

Philosophy is concerned with questioning as to what is the ultimate good. In the area of education, philosophy helps to clarify issues as to what type of values is of most worth and how edcuation can cater for these. There was no explicit philosophy of education in Africa by 1960, but its prevailing views can be deduced from practice. One feature of education then was that is was seen as intended for the few who could avoid being squeezed out by its competitive nature. It was also provided mainly by religious bodies and so emphasized religious instruction, especially conversion into christianity. The products were intended mainly for subordinate clerical and administrative jobs.

Content represents what is actually taught in the school system. By 1960 the content of African education was one-track in nature. This means that only the orthodox academic subjects were taught. "Non-academic" disciplines received such degrading titles as "manual labour" in some places and were often used as a form of punishment in others. Where practical subjects were taught, they were often non-examinable.

Quality is a difficult concept to describe in education. It can be seen however as a combination of (a) what was taught and learnt, (b) how learning and teaching was carried out, (c) other habits inculcated by the school as an agent of education, and (d) the impact of the educational system on the entire society.

By 1960, teaching was considered generally good, as teachers were seen to be inventive, resourceful, and devoted. There were however very few professionally trained teachers (particularly indigenous African teachers)

and the level of recruitment of teacher training institutions was generally low. Very few Africans had post-secondary education. In fact a country like Zaire had no single university graduate at independence.

The educated African was the object of ridicule in many places. He was seen as being neither a true African nor a westernised person. What is worse, he was seen as not being capable of contributing appropriately to the development of his society.

In summary, education in Africa at independence was not equal to the task of nation-building. Access to education was limited. There were very few people with higher education and technical skills and those who have had the benefit of western education were not seen as contributing much to the development of their various societies. Reform was therefore urgently needed and this has gone on since in various forms.

Major Instruments and Processes of Educational Reforms

As has just been said, educational reform has gone on in Africa and has taken a variety of forms. We shall now see the major instruments and processes that have been used for this purpose.

Regional conferences have been the major catalyst of action geared towards educational reform in Africa. UNESCO has been at the forefront of these conferences (of African Ministers of Education) which have been held in Addis Ababa (1961), Nairobi, (1965), Abidjan (1968), Lagos (1976) and Harare (1982).

In the early years of independence the emphasis in these conferences was on quantity: increased enrolment, increased access to education, increased transition rates from one level of education to another, increase in the enrolment of girls, and universal primary education (an objective that was expected to be attained by 1980). The concern for quantity here was understandable, as educated manpower was needed in large numbers to man public and private sector services.

The current trend is to concentrate on quality. This (as exemplified by Lagos and Harare) has meant a shift in emphasis to such issues as (a) the use of African languages in education, (b) integration of formal and non-formal education, (c) the teaching of science and technology, (d) indigenous capacity for curriculum development, (e) financing of education, (f) education and productive work, (g) intensification of sub-regional, regional, and international cooperation.

Regional and sub-regional organisations in the field of education have also been instrumental to educational reform in Africa. Organisations like ASSP (African Social Studies Programme), SEPA (Science Education Programme for Africa), and ACO (African Curriculum Organisation) have helped to train manpower for curriculum development and to adapt new curricula ideas to African needs, particularly in the English-speaking countries. Higher level manpower training in the field of education has been provided by ATEA (African Teacher Education Programme), while opportunities for regional cooperation have been championed by such organisations as BASE (Bureau Africain des Sciences de l'Education), AAU (Association of African Universities), etc. A major problem with these organisations has been that their activities tend to fizzle out once external funding stops.

Reform has also come to African education through borrowing from the outside world. The French-speaking countries have, in many cases, been influenced by reforms in France, such as changes in the form of the baccalaureat examinations. New methods of curriculum organisation (e.g. integrated science, social studies, language arts) have come to the continent from Europe and America. There has also been the influence of socialist ideology, especially in changing attitudes towards practical activities in schools and in the evolution of philosophies which emphasize education for all.

National debates and conferences, have also served as instruments for educational reforms. In many cases, they have been the very beginning of educational re-thinking. Thus, Nigeria's national curriculum conference of 1969 led to the publication of the first philosophy of the country's education. Zambia submitted the draft of her educational reform document to public debates in the mid 1970s. Botswana set up an international commission to review its educationsl system also in the mid 1970s. Tanzania defined its socialist ideology in 1965 and went on to draw out its implications for education. Congo and Benin, when they adopted Marxism as "guide" also went on to organise public debates on its educational reform.

Teachers' organisations (particularly asssocations of subject teachers) have also been influential in educational and curricular reforms in a number of countries. It has become customary to have teachers' organisations represented in educational reform commission and curriculum panels. In Nigeria, in particular, associations of teachers of national languages, Science, Social Studies, Geography, History, English, French, etc were able (in the 60s and 70s) to force through alternative examination syllabuses, to develop curriculum materials, and to influence change in various ways.

National debate in many of the African countries led to the elaboration of National policies of education. Zambia published one in 1979 and Nigeria in 1977 (revised 1981). Togo had her "Education Nouvelle" in 1975. Botswana had her "Education for Kigasumo" in 1980, while Tanzania was the first to break this new ground as far back as 1967, with the publication of its often quoted "Education for Self-Reliance".

A major instrument of implementing the specifications of national policies on education has been the establishment of national curriculum centres. These centres have developed in various directions and have emphasized different aspects of education, but they have all succeeded in mobilising their nationals for curriculum development efforts.

This catalogue shows that some noticeable effort has been made to reform education and curricula in a number of African countries. It will not be possible to list all the achievements so far recorded, but one could consider the most significant ones.

Major Achievements in Educational and Curricula Reforms in Africa

Perhaps, the first major achievement is that EDUCATION, both as a discipline and as an activity, has been taken seriously in Africa since the 1960s. There has been a tremendous upsurge in educational re-thinking, though the degree of seriousness has varied from one place to another.

There has been, in nearly all cases, a reconceptualisation of education as not just schooling, as encompassing out-of-school learning. Education is also now seen as having both intrinsic and utilitarian values. It is also now seen more as an instrument of social change and as something which must be related to national goals and aspirations.

In several countries there has been a re-structuring of education. Nigeria, for example, now has a 6 - 3 - 3 - 4 structure (6 years of primary education, 3 years of junior secondary, 3 of senior secondary, and 4 of higher education). Kenya has an 8 - 4 - 4 structure. In these and other cases the emphasis has been on building a firm foundation of basic education. The term basic education has caught on in some countries to the extent that the first cycle of education is now called Ecole de base (Congo) or Ecole Fondamentale (Benin).

African languages are no longer a novelty in education. As languages of instruction, countries like Tanzania, Burundi, Rwanda, Somalia, Madagascar now use them at all levels of basic education. They are also used in the early years of education for instruction in countries like Nigeria,

Ghana, and Sierra Leone. As subjects on the time table, they feature in nearly all countries. In adult literacy programmes they have become the major instrument of instruction. Countries like Ethiopia, Somalia, Burkina-Faso, and Mali have recorded tremendous progress in this regard.

There have been commendable efforts to develop national curricula, including the writing of national textbooks. Curricula have been enriched in a number of ways, through (a) greater integration of disciplines, (b) spread in curricular offerings to include 'academic' and 'practical' subjects, (c) increased emphasis on primary science, especially in those countries which have adopted the SEPA approach which stresses 'doing science'.

Teachers have also been receiving progressive upgrading, in terms of (a) improved level of entry to training programmes, (b) provision of distance-learning programmes, and (c) provision of structures for continuing education. In the first case, countries like Togo, Nigeria, Swaziland now require completion of secondary education as minimum requirement for entry into primary teacher education programmes. Distance-learning opportunities for teachers also exist in Nigeria, Togo, Lesotho, Zimbabwe. Permanent continuing education centres for teachers, like Togo's DIFOP (Division de la Formation Permanente) are springing up almost everywhere.

Examinations, which exert an unhealthy influence on the school curriculum all over the continent, are now being subject to radical re-thinking. Tanzania has had her own national examinations board (examining her own national curriculum for over a decade). Continuous assessment has now been accepted as a national policy in Nigeria. Other countries are also progressively breaking away from external examinations.

These efforts are laudable. They have certainly produced desirable results. But there are still problems to be solved, a subject to which we now turn.

Some Unresolved Problems

Several factors have contributed to African countries not fully achieving their anticipated results of educational and curricula reforms. We shall discuss the most important factors briefly.

Almost every African country has experienced serious economic difficulties in recent years. The difficulties have been due to both national mismanagement or absolute lack of resources and the effects of international economic trends.

In several cases, there has not been the political will to initiate, consolidate, or intensify educational reform efforts. Thus, policy intentions have often remained on paper while official pronouncements place an undue emphasis on constraints.

Instability in the politics of some countries has led to lack of continuity of innnovative programmes. What is initiated by one government is abandoned by the next one, and there is a new beginning each time there is a change of government.

Sometimes the implementation of reforms has in itself not shown evidence of innovativeness. Some Africans have tried to teach technical subjects with the same machines used in industrialised countries. There have also been cases of uncritical borrowing from abroad, like some countries attempting to generalise the use of television in schools.

There have, in addition, been sources of resistance within each country. For example, efforts to generalise the use of national languages in education have often met with the resistance of privileged groups, who have often felt that learning of African languages would adversely affect their children's ability to acquire English and French.

Planning has also been a cause of concern in African states. The capacity for educational planning is still limited, inspite of intensive training programmes on the continent and elsewhere. In a number of cases, poor planning of educational reform has led to poor execution. Related to this is the issue of reforms being introduced from the periphery to the centre, instead of its being the other way round. Thus, one often sees cases of projects (e.g. Nigeria's continuous assessment project) being introduced from the top echelons of the education system posing a problem for its getting to the grassroot teachers.

The exchange of experience (especially of the South - South type) has also not been adequate. This is a situation caused by (a) a colonial heritage which has held francophone and anglophone Africans wide apart for too long, and (b) technical problems connected with comunication in Africa.

NEIDA (the Network of Educational Innovations for Development in Africa) was set up at the Unesco regional office in Dakar - Senegal in order specifically to facilitate exchanges on the continent. The network has concentrated on (a) the use of national languages in education, (b) administration and supervision of educational systems (c) the teaching of science and technology, (d) education linked with productive work, (e) basic and continuing education of educational personnel, (f) production and distribution of educational materials, and (g) education for rural development.

There has been an effort to create NEIDA - associated projects in every African member state of Unesco. Publications of NEIDA are also circulating, but the problem of the right hand of Africa not knowing what the left had is doing still remains unsolved.

These problems have created a wide gap between intentions and achievements in the following areas:

- the elimination of illiteracy
- articulation of formal and non-formal education
- democratisation of education
- the quality of teaching and learning
- linking education with productive work.

That these ambitions have not been fully realised does not mean that considerable efforts have not been made in Africa to reform education and curricula. Both from its achivements and unresolved problems other nations can draw some lessons.

Possible Lessons for South Africa

Should South Africa come closer politically to the rest of the continent today, it should have appropriate lessons to learn both from achievements and mistakes in the area of educational and curricula reform.

That the inherited colonial system has been subjected to questioning is itself a major lesson to learn. To what extent would South Africans retain what they have always practised as education, without questioning it?

The various educational policy documents circulating in Africa (and the efforts leading to their elaboration) also merits being used as a lesson for South Africa. This same can be said of the African efforts to create national curriculum centres to develop national curricula, to write national textbooks, to train nationals in curriculum development - efforts which are all worthy of emulation.

There have been success stories, as well as cases of frustration, in efforts to use African languages in education. South Africa, which has also made some efforts in this area, will have a lot to learn from the rest of the continent, especially in the positive achievements of facilitating learning and respect for national culture through national languages.

Efforts to democratise education in Africa are also something which South Africa should embark upon. This should be part of the over-all democratisation process in that country, aimed at making every citizen participate in the education policy-making process, giving all citizens access to identical types of education, and encouraging

inter-group affinities through education.

Perhaps, the most important lesson for South Africa will be her changing her apartheid policy. This will entail her becoming more open to the world and to the pool of world ideas (including African ideas).

SECTION B: BASIC PRINCIPLES

I

BASIC CONCEPTS

1. This chapter is concerned with explaining the terms "curriculum" and "curriculum development". It will also discuss factors which determine curriculum development and examine major approaches to this process.

1.1. The Term "Curriculum"

Curriculum has been defined by many people in many places. It is difficult to talk of right and wrong definitions. Broadly speaking, however, there are two main categories of definitions: the narrow and the broad.
The former sees "curriculum" as a package (something tangible, to be taken away and used) while the latter sees it as a process, that is, the package and the continuous work involved in bringing the package into being, the thinking behind the package, and the continuous efforts of making curriculum serve the needs of society.

1.1.1 Examples of Narrow and Broad Definitions of Curriculum

The following definitions have been arranged in such a way that the narrowest comes first and the broadest form last.

(a) Curriculum is what examiners require the teachers to emphasize in their teaching.

(b) Curriculum is what should be taught in a particular subject.

(c) Curriculum is the totality of the syllabuses of a school.

(d) Curriculum is a combination of classroom and out-of-classroom activities.

(e) Curriculum is the totality of activities carried out under aegis of a school, in response to societal demands.

(f) Curriculum consists of the continuous chain of activities necessary for translating educational goals into concrete activities, materials, and observable behavioural change.

It can be seen that the earlier definitions (a,b,c) tend to see curriculum as a package. Definitions (d) end (e) lie between the narrow and the broad, because they emphasize activities beyond syllabuses and classroom teaching. On the other hand, definition (f) emphasizes the entire process of curriculum-making.

These ranges of definitions have something in common. They all refer to activities and instruments needed to make educational dreams easy to realise. What is more, each of (a) to (e) is embodied in definition (f). We can therefore say that the narrower forms of definitions are all sub-sets of the more all-embracing process type of definition.

1.2 Curriculum Development

Development, in everyday language, refers to qualitative improvement. The search for improvement is a continuous activity among human beings. This is because conditions of things in the world are never static. They are dynamic (i.e. constantly changing.)

Curriculum has to be responsive to changing social conditions. Society is constantly changing. So also are the schools, the teachers, the learners, and the disciplines (or subjects) taught in schools. A continuous search for qualitative improvement, in response to societal changes, is what curriculum development is all about. A curriculum which does not embody the process of continuous search for change is bound to become irrelevant, out-moded, and therefore of little use.

1.3 Determinants of Curriculum Development

Curriculum development is determined by a large number of factors, the most important being the learner, the changing nature of schools, changes in society, developments from the outside world, changes in educational thinking, changes in the nature of the disciplines.

1.3.1 The Learner

The nature of the learner is constantly changing. For example, in recent years the average age of entry into schools has become much lower than was the case ten years ago. Children nowadays also tend to have access to other sources of learning (e.g. the mass media). More African children now ask questions and express themselves more freely in the presence of adults. A responsive curriculum has to take account of such changes.

1.3.2 The Changing Nature of Schools

Schools themselves (as agents of formal education) are constantly changing. One of the factors influencing constant change is demography, as increases in the number of children born in a society could result in increases in overall enrolments as well in the size of classes.

Educational facilities are also subject to frequent changes. For example, machines (e.g. computers) have come into the classroom in some countries. So also has been the transistor radio and the tape recorder. There is also an increasing tendency for teachers to become more specialised (i.e. learning to teach specific subjects like physical education, fine art, music etc), instead of remaining generalist teachers, particularly at the primary level.

The location of schools also has its effects on the curriculum. Schools located in remote villages will not be expected to use the same materials and resources as urban schools. Neither will schools with strong PTAs be in the same state as those with weaker PTAs, or those with no PTAs at all.

1.3.3 Changes in the Wider Society

Changes in the wider society, whether demographic, economic or psychological, affect the school curriculum. Schools with strong economic support systems, for example, will have better facilities than schools in poorer environments. Societal pressures also have a strong influence on the behaviour and attitudes of teachers and pupils, especially on what teachers do in schools and out-of-school.
In Africa, there is an increased shift towards urbanisation and this poses curricular challenges. There is also a greater shift towards town-based occupations, as a result of the drift of people from the rural areas.

1.3.4 Developments in the Outside World

Developments in the outside world have a marked influence on the lifestyles of people in African societies today.

Through the mass media communities get to know about various developments in the outside world. The emphasis that is placed on a broad-based education right up to the end of high school in the U.S.A. and Britain, is an influence increasingly adopted by other countries, especially in those African countries which have recently evolved national policies on education.

1.3.5 Changes in Educational Thinking

The regular changes which occur in educational thinking is another determinant of curriculum development. There are, for example, such new approaches to teaching as child-centredness. There is also the move towards the education-for-all concept of UNESCO, which has prompted many nations to think of increased access to education for all sectors of the population - women, the handicapped, the out-of-school population.

Changes in the disciplines (i.e. subjects taught at school) come about in several ways. Each discipline has its own methodology, referring to the method of studying it. This is constantly changing, as in language studies, today the emphasis is on oral usage. In geography, emphasis has shifted from names of geographical features to the interactions between man and his physical environment and the socio-economic implications of such interactions.

There is also the fact that research is always adding to existing knowledge, or modifying it. For example, school physics twenty years ago did not touch on space science; today, it would be unthinkable to leave out this important area of knowledge.

The demands of present-day living have also brought many hitherto non-school subjects into the schools. Government, developmental studies, environmental education, population education, etc. are now beginning to feature in schools, because it is believed that they are useful in preparing today's learner for future adult roles.

1.3.6 The Notion of Crises

In most cases conscious curriculum development work is propelled by social crises and upheavals. People suddenly become aware that children are failing examinations, that graduates of schools remain unemployed (or are unemployable), that students are protesting against existing situations in schools, etc. As a result, thought and action begin on curriculum change.

Crisis do erupt in a sudden manner. They however take some time to build up. Changes in society tend to go on almost imperceptably, and people often are not aware of them (and the need to make the curriculum responsive to these changes) until a crisis situation develops.

1.4 Approaches to Curriculum Development

There are two major types of approaches to curriculum development, one is the panic approach and the other is the systematic approach.

1.4.1 The Panic Approach

Panic refers to acting on impulse. For example, when students boycott classes in South Africa, the government responds with repression, quelling the ensuing riots with police and other repressive acts rather than analysing the root of the problem and tackling the problem in all its ramifications.

A characteristic of the panic approach to an educational crisis is the lack of analysis of related situations. In the above example, we see how the South African Government responds to students unrest with brute force rather than with analysis of all the problems involved as a step in working out appropriate and thorough solution to the problems that led to student boycott of classes. Another characteristic of the panic approach is that it is often peacemeal in nature. In the case of dealing with the problem of student unrest, the South African Government will look for instant solutions which serve temporarily to pacify inflamed tempers rather than lead to permanent solutions. A third characteristic of the panic approach is that it creates more problems than it is intended to solve because a systematic approach to solving the problems is lacking. In the above example of pacifying of inflamed tempers the South African Government merely creates more intractable problems for education as children go to school unwillingly or move into non-government schools.

1.4.2 The Systematic Approach

The other way of dealing with a crisis in education is the systematic approach which begins with an analysis of prevailing situations. All aspects of the situation are considered, thus leading to a determination of procedures and an anticipation of problems and their possible solutions.

The systematic approach also leads to asking questions relating to:

(a) what is to be done,
(b) how it is to be done,
(c) its impact is to be assessed, and
(d) an anticipation of likely problems.

Unanticipated problems will arise all the same, but these become challenges which generate other systematic activities in the continued process of curriculum development.

For example, if after a programme of teaching in the Xhosa language, learners are seen not have mastered geometric concepts in the language, the systematic approach does not simply abolish the use of Xhosa in Mathematics classes. Instead, there will be an effort to find out what was responsible for a major objective not being realised. Could it be the material used in teaching and learning? Could it be that teachers have misrepresented geometric concepts? These and similar questions will demand a systematic search for answers with a view to seeking continous improvement.

1.5 Models of Systematic Curriculum Development

Specialists have distinguished three major models to systematic curriculum development:

the linear model,
the cyclic model, and
the chain model.

These first two models (namely the linear and the cyclic) have the same components. These are:

- an analysis of prevailing situation;
- determining the intentions of the needed curriculum,
- selecting appropriate means of arriving at the intentions
- deciding how best to determine the extent to which the intentions have been arrived at.

1.5.1 Analysis of the Prevailing Situation means looking into the needs of the society for whom the curriculum is going to be developed. This includes a consideration of such issues as the demographic, the economic, and the social features of the society.

1.5.2 Setting Objectives will be an answer to the question relating to what we want to achieve. In other words, we are spelling out exactly where we are getting to (e.g. the areas that should be covered in order to help a pre-school child to become ready for school-reading)

1.5.3 Selecting means of achieving the objectives involves decisions as to how we are going to achieve the objectives mentioned above. In our example - we are going to look for suitably trained personnel to assist the pre-school children. We are also going to look for specific activities to develop the child's preparedness for school learning.

1.5.4 Determining the extent of success: This now will find out whether the objectives that were set out to achieve have been achieved. For our example, we would want to know the extent to which our pre-reading activities have prepared the child adequately for school reading, the extent to which pre-school play has made the child sociable, etc.

The cyclic model (figure b) is generally considered as improvement on the linear model, because it takes greater account of the continuous nature of the process of curriculum development.

1.6 The Chain Model of Curriculum Development is an attempt to combine the two other models, to represent what really happens on the ground, when practitioners work on a curriculum.

Even though curriculum development is a cyclic and continuous chain, it has hot spots (times at which certain strategic actions are taken. These spots are represented by the capital letters C,P, M, T, R, D, and M in figure C. At the same time, there are bubble spots (during which periods there are intense activities around a major one). These are represented by small letters c, p, m, t, and r in the same diagram.

1.6.1 A curriculum project usually starts as an idea which is conceived. Thus, C in figure c represents CONCEPTUALISATION, the conceived idea is toyed with in the minds of people in the bubble (cc) and it leads to a PLAN (P). The plan is subjected to comments in all sorts of places (pp) before being used a basis for a MATERIAL (M). This itself is the result of intensive activities (mm). The material is at first a draft and is usually subjected to a TRIAL (T). Trying-out is itself a bubble of all forms of activities (tt), leading to a REVISION of materials (R). This is again done in an intensive manner (rr) to produce materials that are ready for DISSEMINATION (D). Since curriculum work is un-ending, what is disseminated is subjected to constant MONITORING (D).

1.6.2 In figure C, the forward-looking arrows show the curriculum chain moving from one phase to another (e.g. from C to P, represented as C - P). The little circles represent the intensive activities involved in turning a phase of curriculum development around several times. Every phase has some influence on the preceding ones, and this explains the need for the backward-facing arrows. For example, discussions on a plan can lead to a reconceptualisation of the new curriculum idea. Thus, we have an arrow pointing backward from P to C (C P). Experience gained during the dissemination phase does affect the revision, the try-out, the material, the plan, and so on.

1.6.3 If educationists in South Africa express strong feelings for ALTERNATIVE EDUCATION, they are already at phase C. As they examine the implications of the concept, they are engaged in cc. From this, they can produce an alternative set of educational ideas and how to put it in practice. This is phase P. Further discussion on this (pp) should lead to new guidelines for work in schools, new books, new approaches (mm leading up to M). These are then tried out in schools to see if they will work - tt leading to T. Field experience will lead to a revision of ideas and material (rr - R). The revised alternative school subjects, methods of teaching and learning, content of what is taught, textbooks, etc. can now be more widely used (D or dissemination). Even then, the work should not end. So, effort is made to see if students are learning, if teaching is now better, etc. (i.e. D), to make for continous improvement.

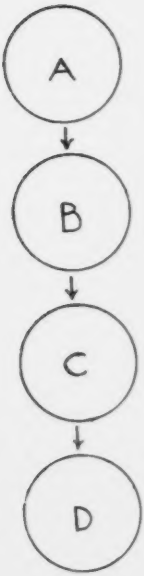


Fig A: The Linear Model

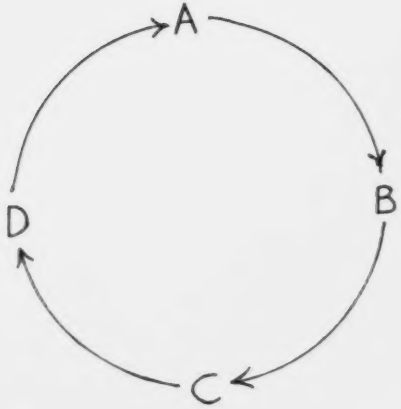


Fig B: The Cyclic Model

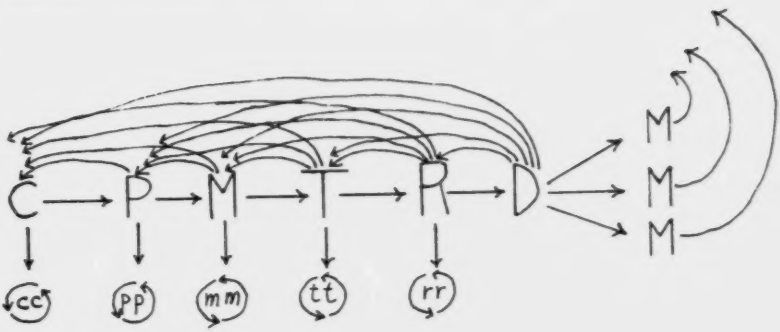


Fig C: The Chain Model

II

EDUCATIONAL INTENTIONS AND THE CURRICULUM

2.0 This chapter is concerned with general statements of the goals of education, as embodied in national educational policies. It endeavours to closely examine how these can be elaborated at different levels, to enable the curriculum developer to arrive at specific objectives which would guide his work.

2.1 Rationale for Intentions

Curriculum intentions are statements of what is expected to be achieved, as contained in the educational policy of a country. They serve as a guide to further action and also a means of determining the extent to which envisaged changes to be brought about by an educational policy are taking place. They arise from a situational analysis to establish areas of need (i.e. gaps between the ideal situation and observable realities). An example is that we ideally expect a teacher to teach by involving the learners, but the reality may show that he lectures to his class and is very detached from pupils. Other sources of educational intentions are the society, the learner, the school system: all those factors which determine curriculum development. What is involved is really an attempt to turn the catch words in a philosophy of national education (e.g. 'Education for Self Reliance', 'Alternative Education', 'People's Education') into something which teachers can work with to bring about desirable changes in learners.

The curriculum developer has to rely on these sources to elaborate the intentions of his own practical work. This elaboration is carried out at different levels, as discussed below.

2.2 First Level of Elaboration

Curriculum intentions are a result of a critical analysis of the prevailing educational and socio-economic situations. Most educational policies embody a catch word phrase philosophy which may not be easy to articulate, e.g. Tanzania's education for self-reliance, and alternative education for South Africa, which are goals to be achieved. Propoponents of alternative education in South Africa will have to spell out what alternative education is. They must clarify why the present system of education in South Africa must be replaced, or remedied, using as a base

the shortcomings of that system. One can, for example, attempt to spell out alternative education as:

that system of education which gives equal opportunities, advantages, privileges and rights to all groups and that

which prepares its beneficieries for harmonious living, opportunities for all round development, and the skills, knowledge, and competencies needed for life in a democratic, dynamic, non-racial society.

The above represents a general statement of intentions (also known as a GOAL). It is still a relatively vague type of statement but it can serve as a guide to further levels of elaboration.

2.2.1 Second Level of Elaboration

This is derived from a detailed analysis of the first level of elaboration. In the definition for "alternative", for instance, terms such as equal opportunity, harmonious living; democratic, dynamic and non-racial society are often used. The curriculum developer often asks quesitons such as:

(a) what are the key terms in a general statement of intention on alternative education?

(b) what do they mean? and

(c) how can they be explained in pedagogic terms?

Having asked these questions the curriculum developer arrives at a point where long-term objectives can be formulated. For alternative education, for example, the following long-term objectives can be generated.

* live in harmony with all racial groups in the Republic of South Africa;

* develop cognitive, affective, and psycho-motor capacities to their fullest capacity;

* generate and prosecute creative thought and action needed for nation building.

The above objectives are still not sufficiently specific to pinpoint exactly what the school system should do. So, the task of further elaboration therefore has to go on.

2.2.2 Third Level of Elaboration

At this level curriculum objectives are formulated in more precise terms. The major characteristic of this level of elaboration is that the focus is on the learner. The learner is the one who should be developed. The curriculum developer has to determine on what aspect of the learner he must focus.

It is at this level of elaboration that action verbs are used to make objectives more specific, more readily observable. Objectives at this level also emphasize the behavioural manifestations of the qualities to be developed in the learner through a given curriculum That is why they are often referred to as behavioural objectives.

2.2.3 Major Characteristics of Behavioural Objectives

Behavioural objectives indicate the intended behaviour of the learner as a result of his interaction with a particular curriculum. If, for example, someone cannot type at the rate of 35 words per minute, the behavioural objectives may be stated in such a way that it is expected that the learner will be able to type at this rate as a result his exposure to a curriculum which emphasizes typing speed.

In formulating behavioural objectives for a curriculum, care is taken to :

(a) specify some form of performance (e.g. trace the course of the River Vaal)

(b) set appropriate conditions of performance (e.g. given a blank map of southern Africa, the pupil should be able to shade the area covered by the Kalahari.)

(c) indicate what should serve as evidence of satisfactory performance (e.g. shade the Kalahari desert, using brown pencil)

(d) use only ACTION VERBS (verbs which lend themselves to easy observation, verbs whose behavioural manifestations can be easily measured in some systematic way). In the examples that follow 1A, 2A, 3A, 4A use action verbs. Compare these with the verbs used in 1, 2, 3, and 4.

1. Love his country

1A Name the four symbols of the nation's coat of arms

2. Appreciate Xhosa poetry

2A Relate the sound of words of poetry to meaning in any given poem in Xhosa

3. Play traditional music

3A Mix tone A with tone B to produce tone AB in Zulu music

4. Know physics

4A State four principles of the law of motion

2.2.3.1 Please note that the goals and long-term objectives of a curriculum are the real starting points for formulating objectives at the more specific level.

Thus, if in the long-term objective it was stated that as a result of exposure to the alternative curriculum, the learner should be able to live in harmony with all groups in the Republic, we can interpret the term "live in harmony with all groups" to generate the following behavioural objectives.

The learner should, as a result of his exposure to the alternative curriculum, be able to :

i. state the major elements of the ways of life of his own people.

ii. state the major differences and similiarities between his people and other groups in the Republic.

iii. outline the contributions of each major group to the development of the nation.

iv. show respect for the ways of life of other groups in the Republic.

v. participate willingly in games, sports, and other recreational activities involving multi-ethnic and/or multi-racial groups.

Note that behavioural objectives tend to be specific. They specify what is expected to be achieved. A set of action is expected to be performed and so they are often also called performance objectives. Since the

performance has to be observed verbs like to understand, to know, to love, to appreciate are not normally used; they are not action verbs.

2.2.3.2 Another Important Point about Curriculum Objectives

Since Education seeks the all-round development of the learner, curriculum objectives try to pay attention to the three main area of Bloom's "Taxonomy of Educational Objectives" (the cognitive, the affective, and the psychomotor).

2.3 Cognitive Objectives deal with the intellect, as in the following examples:

The learner should, at the end of an elementary course in Arithmetic, be in position to :

i. count sequentially from 1 to 100

ii. distinguish between different quantities of objects (e.g. 5 from 10, 50 from 65, etc.)

iii. write from memory any figure between 1 and 100.

Affective Objectives emphasize feelings and attitudes, as can be seen in the following statements which deal with the learner's liking for Arithmetic.

The learner should be able to :

i. join other children in mathematical games involving counting, adding, etc.

ii. devote at least a quarter of his study time to Arithmetic.

2.3.1 Psycho-motor Objectives are concerned with the child being able to coordinate his brain and his physical powers. Applied to an elementary programme in Arithmetic one can formulate objectives which require the learner to be able to :

i. trace, using tracing paper, the figures 6, 9, 8, 3, 4, and 7.

ii. tie match sticks on groups of 5, 10, 15, 20.

Note that there is always some overlap between these three types of objectives.

2.4 Process Objectives

These tend to focus on the process of arriving at an outcome, instead of merely on the outcome itself. The emphasis is on the process to be followed in achieving the desired results. The decision to use or not to use process objectives really depends on the level of the teachers. If the level of the teachers is low, the curriculum developer will be advised to concentrate more on behavioural objectives. Process objectives require that the teacher be simply given methodological guidance and the teacher has to be well trained and experienced to adapt the guidelines to his particular situations.

For examples of process objectives see the following pages, taken from Teaching Methods Across the Curriculum by Pai Obanya (Collins, 1985; pp 126-128.)

Objective	Primary	Junior Secondary	Senior Secondary
1 Developing and sustaining a liking for quantitative methods	The basics of mathematics (BODMAS), presented in a systematic fashion and making sure that all pupils fully understand each process involved.	Arithmetic, plus the basics of algebra and geometry, again ensuring that all processes are understood; use intensive practice.	Continuation and extension of earlier work. More advanced work in geometry and trigonometry. Discussions on the uses of mathematics.
2 Developing computational skills	Embedded in (1), but with more emphasis on concrete mathematics - relating computations to real objects and everyday activities Plenty of activities which involve the pupils handling real objects.	Systematic revision of work done earlier organising it in a clear hierarchical manner so that each stage builds on the skill developed and principles understood at the previous stage.	Systematic revision of the basic principles of computation, taking nothing for granted. Relating computations to real life.

Objective	Primary	Junior Secondary	Senior Secondary
3 Awareness and use of symbols	Common arithmetical signs (+-X+<>%) used repeatedly with the help of visual aids. Fractions and proportions taught in concrete forms. Recognition and production of shapes & figures through constant practice.	Introduction to the use of symbols for reasoning and solving problems (e.g. if x = 9, what is x?) Practice in factorisation, ensuring that pupils understand the meaning of the mathematical representations.	Relating the use of symbols, factorisation and other problem-solving techniques to practical problems Work on angles in planes and solids and use of this for solving practical problems.
4 Developing skills in data collection and analysis	Simple counting, adding and classification of objects in the immediate environment with a close link to other subjects.	Exercises in classifying, approximations and the graphical presentation of data, using group work as much as possible.	Exposure to statistical procedures used by various professionals. Practical group work on data collection and analysis. Presentation of results in a variety of forms: graphs, percencentages, means, standard deviations, etc.
5 Applying mathematical knowledge to everyday problems.	Work at home & group projects on aspects of life in the environment, crop yields, profit margins of parents,traders speeds of vehicules, etc.	Practical activities on everything taught in class. Illustration using everyday activities.	Relating concepts taught in mathematics to other subjects and to what people do in real life - in the technical and commercial fields.

Objective	Primary	Junior Secondary	Senior Secondary
6 Generating a continuing interest in mathematics	Playing with mathematics, including the use of supplementary readers based on mathematics	Mathematics clubs with interesting activities.	Club activities which include conscious efforts to prove that mathematics is important.
7 Developing logical and precise thinking.	Ensuring that pupils understand what they are doing. Encouraging them to explain verbally the steps in what they do.	Ensuring that pupils understand what they are doing. Emphasis on the clear and logical presentation of mathematical work.	Increased emphasis on deducing procedures from basic principles. Developing the ability to abstract mathematical expressions from and apply appropriate mathematical rules to real processes.

The use of process objectives is one way of reducing the problems posed by behavioural objectives. These deal mainly with (a) the difficulty of formulating them, (b) their emphasizing trivialities (i.e. forcing the curriculum developer and the teacher to look out for things that do not really matter, e.g. counting, naming, listing, etc. (c) the fact that the real outcomes of education are long-term in nature and so difficult to quantify, and (d) the fact that there can be unexpected outcomes.

2.5 Intentions start in national policies of education (borne out of the desire for reform) as general statements known as GOALS. These serve as a basis for further work of elaboration, which can be done at varying levels of specificity. The most specific types of objectives are usually of the bahvioural or performance type. These use action verbs, set up conditions and criteria for the learner's performance of a series of tasks. They have the advantage of serving as guide to further action as well as a basis for determining the extent to which the desired outcomes of a curriculum are being achieved.

Behavioural Objectives are however difficult to formulate in very precise forms, especially as one has to pay attention to the cognitive, the affective, and the psycho-motor domains of behaviour. They have also been seen as emphasizing the trivial (though more tangible) outcomes of education.

Process Objectives are an attempt to pay greater attention to the means of achieving an outcome. Both forms of objectives are useful guides to specifying the intentions of a curriculum but the quality of the teachers interpreting a curriculum should be the major consideration in deciding which of the two types of objectives to emphasize.

III

SELECTION AND ORGANISATION OF CURRICULUM CONTENT

3.0 This chapter explains the term curriculum content. It then goes on the explain why a selection has to be made and the criteria for selecting. There is also a discussion on how to organise the content already selected.

3.1 The Term Curriculum Content

The CONTENT element in a curriculum refers to that aspect of the package which deals with the body of knowledge which is to be absorbed by the learner. Curriculum content can be seen in different forms:

* a concept: a particular principle to be learnt, e.g. the concept of heat, wind direction, number, etc.

* a topic: a body of knowledge made up of a body of related concepts, and the links between them, e.g. how rains are formed, how an internal combustion engine works.

* a discipline: a traditional distinct area of scientific inquiry, e.g. history, geography, mathematics, Science.

* survival kits: a body of knowledge drawing on the orthodox disciplines but designed to tackle specific life problems, e.g. family life education, population education, drug education, road traffic education.

* a set of skills: activities to be carried out, using a set of scientific principles, e.g. swimming, typewriting, cookery.

Content in its various forms does go into a curriculum and there are systematic processes for deciding what should go in.

3.2 Why select?

Systematic curriculum development is not haphazard activity. Therefore, one has to systematically build in what content is needed to meet the requirements of the intentions (i.e. objectives) of a curriculum.

The first reason for selection is the need to minimise the effect of orthodoxy (i.e. a tendency to go about things according to age-long traditions). Thus, a curriculum developer does not simply say "let me include history, geography, Xhosa, etc." because that's the way it's done. He has to consider other factors which we shall see in section 3.3.

The objectives of a curriculum have of course got to be the major determinant of the content selected. There is also the fact that knowledge is continuously exploding and one cannot include all that is available in any given curriculum.

From this arises the need to pay attention to general principles (i.e. that which constitutes the key to a body of knowledge). We also need to consider the need to offer the learner a broad general knowledge, as well as the need to make him feel the essential unity of knowledge.

Thus, the "rules" of the basic operation in mathematics would be preferable to the mere quantity of arithmetical exercises offered to learners. In like manner, the methodology of science (observation, measurement, recording experimentation, drawing up of hypothesis) would be preferable to sheer quantity of scientific information.

Other reasons for choice in matters of content include:

(a) the characteristics of the learner, (b) the societal and school environment, (c) the characteristics of the teachers, and (d) the type of materials available.

Having considered these factors let us now see what should guide the curriculum developer in his selection of content.

3.3 Major criteria for the selection of content

By attempting answers to questions such as the ones below, the curriculum developer can solve the problems connected with the selection of content.

3.3.1 To what extent is the content related to the objectives of the curriculum?

3.3.2 To what extent does the content represent the present state of knowledge in the discipline?

3.3.3 To what extent can the content consolidate what is already available to the learner?

3.3.4 To what extent does the content represent the core of the discipline, so as to constitute a meaningful threshold level for the learner's continuing education?

3.3.5 To what extent does the material represent what can be taught and learnt under prevailing conditions in the schools?

3.3.6 To what extent does the material respond to the needs of the child and of the wider society?

In short, a consideration of the rationale for selection gives a reasonable clue to the criteria for selection.

3.4 Curriculum Content Organisation

Organisation refers to the manner in which the content of a curriculum is presented to the learner. Broadly speaking, there are two major approaches to organisation:

(a) the presentation of individual disciplines of the learner, and

(b) the labelling of the disciplines themselves.

3.4.1 Patterns of Presentation to the Learner

Three major patterns are considered here: (a) the linear method, (b) the grouping method, and (c) the spiral method. Let us consider each of these patterns briefly.

3.4.1.1 The Linear Approach presents a body of content in a linear sequence, as seen in the normal table of contents page of most conventional textbooks:

i. Counting from 1 to 100.

ii. Recognizing quantities up to 100.

iii. Addition of two-digit numbers up to a maximum of 100.

iv. Subtraction of two-digit numbers.

v. Multiplication to obtain products not greater than 100.

vi. Division using one-digit divisors for sums not greater than 100.

The line i - vi should represent a sequence, well "enchained" in an increasing order of complexity.

3.4.1.2 The Group Approach involves grouping a block of related topics under an umbrella theme, as in the following examples.

Content Area: The way we lived

A		B
Unit 1:	South Africa before 1652	Module 1:
Lesson 1:	What the face of South Africa looked like before 1652	Traditional Religions Practices - textbooks photographs, workbooks on related themes.
Lesson 2:	How South Africa was populated before 1652	
Unit 2:	Religious Practices in Traditional Times	Module 11:
Lesson 3:	The Nature of Traditional Beliefs	The Early Peoples of South Africa
Lesson 4:	Zulu Traditional Religious Practices	- texts and other materials on related topics.
Lesson 5:	Xhosa Traditional Religious Practices	
Lesson 6:	Tswana/Sotho Traditional Religious Practice	Module 111: Traditional Patterns of Life
Unit 3:	Traditional Social Organisations	Texts on the Zulu, the Xhosa, the Sotho/ Tswana, etc. other materials, exercises.
Lesson 7:	Traditional Life Among the Zulu	
Lesson 8:	Traditional Life Among the Xhosa	
Lesson 9:	Traditional Life Among the Tswana/Sotho	
Lesson 10:	Lessons from the Traditional Life Patterns of Our People.	

In A the UNITS still remain a chain, like in the linear organisation of topics. Unit 1 has to be covered before Unit 11 is embarked upon, and so on. In B, on the other hand, each MODULE is independant of the other and the teacher can decide which module to handle first. The Unit Approach seems more relevant to African situations, in which teachers need a great deal of guidance.

3.4.1.3 The Spiral Aproach involves bringing in the same topics, at various levels of instructions, but delving deeper into subject matter each time. Thus, the learner's horizon is broadened each time. For example, one could organise a social studies content along the following lines:

	TOPIC	Std 1	Std 11	Std 111	Std IV
i.	The family	My home as a family	My village as a family	My region as a family	The nation as one family
ii.	Social Relations	My duties in the home	My services to the community	The religion and I	My duties to my nation
iii.	Earning a Living	Producing on the farm/ selling farm products	Producing utilities for sale	Working in an office/ factory	The nation's financial institutions
iv.	Our Past	The beginning of my exten-ded family	The story of my village	How my region has developed	My country since the past 50 years

The spiral pattern is now commonly used for its educational values. It enables a learner to be introduced to a topic early in his educational career. This topic is then built upon subsequent stages of education.

3.4.2 Organising the Disciplines themselves

Curriculum developers, in their efforts to relate content to societal demands, have evolved different patterns of organising. These are outlined below with their special features, advantages, and disadvantages:

	Approach	Main Features	Advantages	Disadvantages
i.	Traditional Disciplines	individual disciplines are retained in the way they have always been - chemistry, physics, history, etc.	easy to cooperate	atomisation of knowledge
ii.	Integration	areas of knowledge with related methodology and focus are woven together (e.g. Science, Social Studies, basic technology, etc.)	respects the unity of knowledge represents a better foundation to further learning.	integration difficult in practice
iii.	Life Expectation	knowledge and skills related to a specific life problem are grouped to form a discipline (e.g. earning a living)	closely related to out-of-school-life.	difficult to put into practice

There is, these days, a greater tendency towards INTEGRATION at the lower levels of formal education (e.g. the years of basic education, 6-9 years). Integrated disciplines have also been used for the non-specialist student at higher levels of education (e.g. Integrated Social Studies for students of the natural sciences).

Life-related considerations have been successfully used in non- formal education and are gradually getting into the content of formal education (e.g. Road Traffic Education in Togo, Developmental Studies in some southern African countries).

3.5 CONTENT is an important element in the curriculum package. They represent the raw materials for facilitating the realisation of the objectives of a curriculum. It is not possible to teach every item of knowledge (or every discipline) available. A selection therefore has to be made, bearing in mind a number of considerations. What is selected has to be organised to facilitate the use of the content in teaching and learning.

IV

CURRICULUM MATERIALS FOR PUTTING ACROSS THE MESSAGE OF A CURRICULUM

4. The translation of curriculum objectives into concrete activities requires the use of materials (or objects with which the learner and the teacher have to interact in their efforts to bring about the envisaged outcomes of a curriculum). This chapter deals with the nature of curriculum materials, explains the choices the curriculum developer has to make, and dwells specifically on the process of curriculum material development.

4.1 Nature of Curriculum Materials

Curriculum materials are not simply printed matter or textbooks. Let us make the distinction clear.

4.1.1 A BOOK can be anything in print bound in a form that is designed to make it last (e.g. a novel, a travel guide, a biography, a reference material).

4.1.2 A TEXTBOOK is printed material meant for use in schools, or in any other teaching-learning situation. It can be recommended (i.e. to be used or not used by the learner and the teacher or prescribed to be used compulsory). It could be basic (necessary for fundamental learning) or supplementary (an aid to the basic text, an additional source of information).

4.1.3 A CURRICULUM MATERIAL could be in the form of a book or a textbook, but it has the additional characteristic of being closely linked with the objectives of a specific curriculum. It is not simply written, it is developed. This means that it is the product of a systematic process, like curriculum development itself. A curriculum material may also not be in book or print form, as we shall see in the following section.

4.2 Types of Curriculum Materials

The major purpose of a curriculum material is to facilitate the attainment of specific curriculum objectives. Therefore, different types of materials are used to achieve different types of objectives. The major types are:

TEXTUAL MATERIALS	(books - pupils' basic texts, supplementary readers, work books.)
SEMI-TEXTUAL MATERIALS	(print materials, but not necessarily in book form - charts, maps, drawings.)
NON-TEXT MATERIALS	(non-print materials, e.g. realia or real objects, models, recordings.)

4.2.1

Types of Material		Advantages		Disadvantages
(a) Textual	1.	Traditional	1.	Can become easily out-dated
	2.	Familiar	2.	Does not provide all possible learning support
(b) Semi-textual	1.	Illustrative	1.	Difficult to use
	2.	Decorative	2.	Difficult to preserve
(c) Non-textual	1.	Natural	1.	Often expensive
	2.	Makes for more permanent learning.	2.	Difficult to use

4.3 Major Decisions Regarding Curriculum Materials

To implement the provisions of a given curriculum guideline, decisions have to be taken as to whether to adopt, to adapt existing materials or to create new ones.

4.3.1 Adoptation implies using what already exists somewhere in its entirety (e.g. using exactly the same textbooks for English language in London as well as in Soweto).

4.3.2 Adaptation involves analysing a material according to a set of pedagogical requirements and then modify it either slightly or to a large extent.

What is modified can be
(a) level of language,
(b) illustrative examples,
(c) the organisation of content,
(d) the nature and arrangmeent of exercises.

4.3.3 An existing material can also be supplemented by

(a) a teacher's guide
(b) a glossary
(c) an introduction
(d) a book of exercises
(e) non-text and semi-text materials.

4.4 Analysis of Curriculum Materials

To be able to reach appropriate decisions on whether to adopt, adapt or supplement a given curriculum material it is necessary to analyse it, as suggested in 4.3.2 above.

An analysis implies breaking down the material into a given set of specifics and answering the questions arising from such a set of specifics. This can be done in a number of ways, but a questionnaire, like the one below, to be considered by various potential and actual users of the material, is particularly useful.

4.4.1 Framework for Textbook Analysis

Major Areas of Concern	Specific Questions	Ratings Satisfactory 5	4	3	Unsatisfactory 2	1
A. The Author(s)	1. qualification 2. experience	5	4	3	2	1
	3. original intentions for writing, for what group?	5	4	3	2	1
B. Technical considerations	4. size of	5	4	3	2	1
	5. print	5	4	3	2	1
	6. beauty of cover	5	4	3	2	1
	7. durability of cover	5	4	3	2	1
C. Content	8. Coverage of curriculum prescriptions	5	4	3	2	1
	9. relationship with objectives of curriculum	5	4	3	2	1
	10. accuracy of information, interpretation of concepts	5	4	3	2	1
D. Pedagogic	11. method of organisation of content	5	4	3	2	1
	12. level of language	5	4	3	2	1
	13. quality of illustrations	5	4	3	2	1
	14. type and level of exercise	5	4	3	2	1
E. Other	15. existence of 'accompaniments' teachers' guides, workbooks	5	4	3	2	1
	16. existence of supplementary (non-text) mat.	5	4	3	2	1

4.4.1.1 Areas of concern A and B are as important as C, D, and E. They are however less fundamental. In deciding to adopt, adapt, or supplement, it is more advisable to rely on the extent of which the material has been considered satisfactory/unsatisfactory on areas C, D, and E. Lapses in area E could lead to supplementation. Minor lapses all round could lead to slight adaptations; major lapses to major adaptations and absolute unsatisfactoriness to the creation of new materials.

> THE READER
> SHOULD USE
> 4.4.1 AS A
> BASIS FOR ANALYSING
> THE MATERIALS HE
> CURRENTLY USES IN
> HIS TEACHING

It is always advisable while reforming a curriculum in its entirety to think of creating entirely new materials - a process known as curriculum material development.

4.5 Curriculum Material Development

As has already been pointed out (see section 4.1.3) there are systematic methods of developing curriculum materials. It is a process best acquired through practice, but the reader can note the following general guidelines.

4.5.1 Team Work: System curriculum material development is the work of a team of specialists. In developing materials for Xhosa or Zulu at the primary level, for example, a team can be made up of the following specialists.

i. a researcher linguist from a university

ii. a specialist in language teaching methods

iii. a primary teacher trainer

iv. 1, 2, 3 etc native speakers of the language

v. a primary school inspector of national language

vi. 1, 2, 3, 4, etc practising primary school teachers.

4.5.2 A Close Link between the Material and the Curriculum Objectives

A material development team will study the curriculum outline to link each objective, each contents area, with the material to be developed.

If, for example, the curriculum required an ability to memorise, memorising is included in the material. Where construction is an objective, the material should ensure that the user constructs. Should reasoning be a major objective, exercises involving reasoning are built in.

Even affective objectives do get built into curriculum materials. If, for example the eradication of inter-racial hatred is an objective the words like illustration, the examples cited are selected in such a way as to ensure that they do not promote inter-racial hatred.

4.5.3 A Step-by Step Approach

This is best illustrated by the string of activities that goes on within the material development group:

* A close study of the requirements of curriculum
* a clear statement of what is to be done
* Assignment of tasks (writing, collating, collecting,
* Individual and group task performance
* Production of draft materials

Drafts are usually evaluated in a variety of ways:

* critique by the developers themselves
* critique by other specialists (teachers, teacher trainers, researchers)
* use and comments by practising teachers, parents, pupils
* trial under experimental conditions (use in pilot schools and testing for cognitive and affective outcomes)
* Revision/production in more or less permanent form for general use.

4.5.3.1 Curriculum material development tends to follow the phases of the continuous nature of curriculum development. Every material remains a draft for ever, as it is subject to continuous change in accordance with the continuous search for relevance which characterises the process of curriculum development itself.

4.5.4 The Layout of a Curriculum Material

To illustrate the special nature of the body (the actual content, or what is taught) of a curriculum material let us consider texts (A) and (B) below.

(A)

The Republic of South Africa
.....
.....
(running text).....
.....
.....
.....

It is also a country of.....
.....
text goes on non-stop.....
.....
.....
Some people even call it a
subcontinent because .....
.....
(running text).....
.....
.....

QUESTIONS

1. .....

2. .....

3. .....

4. .....

(B)

In this lesson you will.....(1)
Look at this map.....(2)
Trace the lines from 1 to 111.(2)
What is....?.....(3)
Now, examine.....(2)

ILLUSTRATION.....(4)

Try your hands on the
following exercises.....(5)
Summary.....(6)
Carry out the following
activities later .....(7)

4.5.4.1 You will notice the (A) reads like the conventional textbook. There is a pile up of information and questions come only at the tail end. The user is expected to read the material and not to look to work with it.

4.5.4.2 Text (B) has a number of characteristics best illustrated by explaining the figures on it.

1..... the objectives of the lesson are stated

2..... mental and physical activities are involved

3..... questions are asked

4..... the text does not simply run on, it is interlaced with illustrations.

5..... exercises do not have to come only at the end

6..... a summary is usually provided

7..... learning continues out-of-class.

4.5.5 Multi-Track Package : Systematically developed curriculum materials consist usually of a package made up of

* pupils' books - basic learning points (one book or a chain of texts)

* supplementary materials - designed for enrichment and particularly useful to the faster learner

* workbooks - containing practice exercise to reinforce basic learning points in the major pupils' text.

* non-text accompaniments - for enrichment purpose and for link between school learning and real life.

* teachers' guides - explaining the pedagogy of the material, providing suggestions for classroom use, answers to exercises.

It is not always possible, for financial and other reasons to develop all these at one and the same time. One can however begin with pupils' books and proceed in steps to work on the others.

4.5.6 Volume of Text: Increasing tendency to make the books relatively thin. This is an effort to stress the fact that the textbook is not the only possible place to find the content of what is to be learnt.

4.5.7 Arrangement of Content: Emphasis these days is on arrangement according to units, not chapters, as in the following examples. (see box next page)

A curriculum material therefore gives the learner something to work with, to enable him to effect the changes in his behaviour envisaged in the objectives of the curriculum.

4.6 CURRICULUM MATERIALS take a variety of forms. They have to be really developed, following procedures related to those of systematic curriculum development, this is a task best learnt through practice. All that this chapter has sought to do is to introduce the reader to an exciting type of activity.

Topic: South African Traditional Music

Unit I: Traditional Musical Instruments

Lesson 1:	Drum Instruments (e.g. Moropa)
Lesson 2:	Flute Instruments (e.g. Phala)
Lesson 3:	String Instruments (e.g. Sginci)

Unit II: Social Influences of Traditional Music in South Africa

Lesson 1:	Music while we rest and relax
Lesson 2:	Music while we celebrate
Lesson 3:	Music while we work
Lesson 4:	Music when we are sad.

Unit III: Outside Influences on Traditional African Music

Lesson 1:	The church and our traditional music
Lesson 2:	The influence of European culture on our traditional music
Lesson 3:	Music lesson from other African countries
Lesson 4:	Traditional music in disco form

V

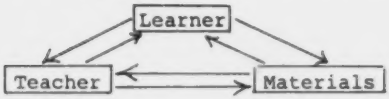
TEACHING-LEARNING ACTIVITIES AND THE CURRICULUM PROCESS

5. In an effort to facilitate the attainment of the objectives of a curriculum, appropriate choices have to be made in the area of METHODS. This chapter tries to explain what is meant by methods and the major possibilities from which the curriculum developer has to make a choice. The advantages and disadvantages of each possible method are outlined and criteria for choice suggested.

5.1 Towards a Definition of Methods

Every curriculum envisages some positive changes in the learner. By what specific approaches should one bring these changes about? A good answer is that while positive changes can be brought about in a wide variety of ways, the major intention is interactive, practical activities. The learner must be confronted with some experience, as an aid to learning (or positive change in behaviour).

Methods therefore have two main components. First, they involve interactions, second they take place through practical activities. The interactions are slightly complex in nature and take approximately the following form.



Interactions embody activities such as talking, reasoning, constructing, reading, etc. Any series of interactive activity involving the learner, the teacher, and the materials, geared towards the realisation of the objectives of a curriculum will therefore be seen as constituting a method. We shall now see what types of methods are open to the curriculum developer.

5.2 Major Types of Methods

Methods of facilitating learning have been classified in different ways, but we shall consider the following: the lecture, discussions, demonstrations, practical activities, and confrontation with realities. In the table below, we outline the major features of each of these methods as well as their advantages and disadvantages.

5.2.1

Approach to Teaching	Major Characteristics	Advantages	Disadvantages
a) The Lecture	a) Communication from teacher to student	a) Speed	a) one way communication
	b) Run-on talk	b) Suited to large classes	b) unsuitable for the slow learner
b) Discussion	a) Exchange of ideas among teacher and learner, learner and learner	a) involves thinking	a) could lead to noise
		b) promotes interaction	b) needs a highly competent teacher
c) Demonstration	a) Learner taken on a "tour" of a process (e.g. how a motorcar works)	a) involves the learner in knowing-why not simply knowing-that	a) could lead to monologues + passivity on the part of learner, if not well managed.
d) Practical Activities	a) Emphasis on the learner actually doing something	a) very suitable for practical subjects	a) needs a competent teacher to organise meaningfully
		b) learning becomes more permanent	
e) Confrontation	a) Seeing, touching, feeling, sensing events, objects, Phenomena in direct contact.	a) makes learning meaningful	a) requires an imaginative teacher

There is no one correct method and the curriculum developer has to make a selection based on a set of criteria.

5.3 Some Criteria for the Selection of Methods

Since systematic curriculum development, as has been repeated in the course of these discussions is not a haphazard affair, methods are therefore not thrown into a curriculum project anyhow. Instead, one attempts to consider such criteria as the following.

5.3.1 The Objectives of the Curriculum

The behavioural outcomes envisaged decides the types of interactive activities used. Let us see what this means by matching the following objectives with appropriate teaching- learning activities.

* respond appropriately to greetings in Xhosa	/ practice of greetings in a variety of situations
* classify the plants in the immediate environment	/ guide exploration of the environment collecting plants and classifying them according to a set criteria established by the teacher.
* draw appropriate links between the cultures of the different races of South Africa	/ talks by representatives of different racial groups on their ways of life, followed by classroom debates and written summaries of the common elements in those cultures.

5.3.2 The Nature of the Content

Different concepts, topics, or subject matter may require different approaches to teaching and learning. Again, we shall attempt to match the following areas of content with appropriate interactive activities.

* Oral traditions as a method of studying history	/ collection of oral tradition by pupils.
* How a television set works	/ a demonstration by a TV technician, accompanies by questions and discussions
* The life and time of Tshaka	/ Narrative by teacher and/or pupils reading of Thomas Mofolo's novel on Tshaka, followed by classroom guided discussions.

5.3.3 The Environment in which the Curriculum is to be operated

Environment, in this sense, refers to a combination of factors - the situation of the schools, of the teachers, of the pupils, of the entire society. All those aspects of the environment have to influence the choice of appropriate teaching-learning methods for a curriculum. Let us again illustrate with concrete examples, with specific subject-matter on the left and suggested teaching-learning activities on the right hand side.

* Religious Beliefs of the / Hindus	a) Summary of information available in books (in places without Hindu influence b) Visits to Hindu places of worship (in places with Hindu influence)
* Social Relations Among / the Zulu	a) Study of photographs, reading from books, watching of films, etc (in places far away from South Africa) b) Descriptions/discussions in class (in places within the Zulu Zone of South Africa.

5.3.4 The Need to Promote Activities by Learners:

Whatever the methods of interaction adopted every effort should be made to reduce passivity among learners. There should be continuous effort to minimise teacher talk and maximise learner participation. Learner participation should involve:

(a) paying attention (being consciously drawn into taking special note of something, e.g. an explanation of a process by the teacher)

(b) listening (being attentive to what is being said by others, e.g. other learners asking or answering questions)

(c) thinking (consciously trying to solve some mental problem, prompted by the teacher as a teaching-learning device, e.g. following an argument in order to put forward a counter-argument)

(d) actual physical activities like moving things around, drawing, tracing, jumping, etc. as may be required in circumstances when technical and practical skills are intended.

(e) self-expression making learners express their views, answers and ask questions, argue, exchange ideas with others.

5.3.5 The Need to Emphasize 'knowing-how' and 'knowing why' at the expense of simply 'knowing that'

Whatever the methods used, in every curriculum activity, to ensure that learners not only memorise words and sentences but also

(a) get at the real meaning of a concept,
(b) see the relationship of one concept to another,
(c) relate new knowledge to old ones,
(d) apply the knowledge gained in practical situations.

Thus, real understanding is a goal of every type of curriculum and any method which fosters deep understanding should be encouraged.

5.4 The Concept of Learning Experiences

Earlier theories of curriculum development referred to methods as learning experiences and later as learning opportunities. These terms are still relevant today. We are seeking for ways of exposing the learners to experiences (i.e. afford him opportunities) which should help them acquire the behaviour traits spelt out in the curriculum objectives.

Experiences can be direct (i.e. being exposed to the real thing) or vicarious (i.e. being exposed to a representation of the real thing). The "real thing" could be an object (e.g. leopard skin), a living thing (e.g. any animal), a situation (e.g. a public gathering), a natural phenomen (e.g. soil erosion), a process (e.g. how an aeroplane flies).

Indirect (or vicarious) experience also takes a variety of forms, the most indirect of which is merely describing a phenomenon verbally. Moving on an increasing incline of directness one finds such activities as the use of pictures, of film strips, of video and audio recordings, of field trips, and of actually sensing the real thing.

All meaningful curriculum efforts attempt to offer the learner that learning experience (or learning opportunities) which is most direct.

5.5 METHODS are scientifically determined processes of engendering interaction between the learner, the material, and the teacher. The curriculum developer has to draw from among several possibilities. Each of these possiblities has its advantages and its disadvantages. There are thus several criteria which should determine the selection of methods. Whatever method is chosen must be appropriate to the objectives of the curriculum. It should also be closely related to the curriculum content, to the teaching/learning environment, and should emphasize deep understanding, through the most possible direct form of experience, by the learner. What is promoted through the learning experiences is the change in behaviour which enables us to attain the objectives of a given curriculum.

VI

APPROACHES TO CURRICULUM IMPLEMENTATION

6. This chapter attempts a definition of curriculum implementation, and proposes a new model for carrying out the activity. Major approaches to implementation are examined, with suggestions on how best to make these work in practice.

6.1 Towards a Definition of the term "Curriculum Implementation"

It is usual to hear of plans being drawn up by people at one level and then handed over to other persons at another level for implementation. Thus, a teaching syllabus can be done by the ministry of education and sent "down" to classroom teachers for use.

This type of approach has conditioned people to see curriculum implementation as taking the curriculum to the users. That is, those who develop the curriculum plan it and hand it down to teacher for generalisation in schools. When this happens, it usually creates a number of problems:

* teachers take some time to understand what the curriculum is all about

* the wider society is likely to resist the envisaged change, because of
  (a) insufficient information, leading to
  (b) lack of understanding

* even when teachers begin operations, they tend to concentrate on the curriculum package, to the exclusion of its spirit.

* eventually the implementation process is likely to stall.

Therefore, it is preferable to see curriculum implementation as taking the people along with the curriculum. This entails involving different sections of the users at every phase of the continuous search for qualitative improvement on the curriculum. Such a procedure has the advantage of:

* getting the potential users involved right from the start, thereby making them contribute to the development of the curriculum, each group (teachers, parents, the wider society, teachers' organisations) doing so in the way it considers most appropriate.

* ensuring wider acceptance and easier movement from planning to using the new curriculum.

* ensuring that users are not necessarily different from developers.

* ensuring that the curriculum package is taken along with its spirits (i.e. its philosophy, objectives and methods).

6.2 A Model of Curriculum Implementation

"Taking the user along with the curriculum" implies a progressive increase in the number of participants in the curriculum development process as work on it progresses. This leads to progressively widening a curriculum audience, as the following diagram shows.

1 = Conception
2 = Planning
3= Selection/Development of objectives, content, materials methods
4 = Try out
5 = Revision
6 = Generalisation
7 = Monitoring

Fig A: A Concentric Circle Model of Curriculum Implementation

6.2.1 What the concentric circles try to illustrate is that curriculum implementation is part and parcel of the entire curriculum development process, and that it is an un-ending process.

The Conception (circles) begins in the minds of some people (teachers, parents, professional curriculum developers, any group of persons). This relatively small circle attempts to bring in more people to

discuss its dream-on-paper (i.e. the plan), thus widening the circle of participants (circle 2). The process of progressively widening a curriculum audience continues in the phases that follow, with more and more people becoming involved in

(a) discussions
(b) debates
(c) contribution to the development of materials
(d) spreading the message of the spirit of the new ideas as work goes on.

Whether one is handing down a curriculum to its users or carrying the users along with the curriculum, certain methods of interaction are widely used.

To these we return in the following section.

6.3 Major Methods of Disseminating the Spirit of a Curriculum

The process of dissemination is really one of INTERACTION between curriculum developers and different sectors of the population. Curriculum developers and the persons they are interacting with are usually people performing different functions but drawn from the same pool of citizens.

Thus, curriculum developers are part of the general pool of persons who may be teachers, other professionals, parents, students, and, most important of all, citizens of a country. People are therefore interacting as equals with a common goal of improving the curriculum. It is not a case of superiors passing on orders to subordinates. Curriculum developers, in the interaction task, have to deal with the groups of people discussed below.

6.3.1 The population in general: Interaction with the populace does take different forms: public debates, newspaper articles, specially organised discussion groups, radio and television discussions. Each society has its structures for mass communication and these can be used at any phase of curriculum development. The early phases (conception, planning) are most crucial as discussions tend to focus more on the basic philosophy of the envisaged changes.

6.3.2 Practising Teachers: Initiating interactions with teachers can proceed in a variety of ways

(a) interest groups in the public going to the teachers
(b) government agencies going to the teachers
(c) teachers going to (a) and (b).

In most cases (a), (b) and (c) go on at the same time and produce a bubble effect (a burst of activity in various directions).

More formal approaches use teacher in-servicing which should serve the purpose not simply of introducing the teacher to the new curriculum or preparing the teacher for the new curiculum, but taking the teachers along with the curriculum. In-servicing should aim more at teachers' accepting the philosophy of a new curriculum: not simply at their knowing about its package. What is to be implemented is the philosophy (or spirit) of a curriculum and the package is only a tool for doing this.

6.3.2 Other Interest Groups: These include persons with special responsibilities in the national education system (e.g. inspectors), specialised assocations of teachers, teachers of specific subjects, and groups with special activities in society (e.g. women, professional bodies). Such groups are usually influential as lines of communication in a society. Bringing them into various phases of curriculum work is therefore an effective way of disseminating its spirit, as well as its package.

6.4 The SPID Concept

Whatever the conception one has of curriculum implementation, and whatever the approach one adopts to implementation, the work involved is really a combination of four processes:

SENSITIZATION	all interest groups are made to see the need for change
PARTICIPATION	all interest groups participate in the task of planned change
INTERNALISATION	every participant imbibes the spirit of the change process
DIFFUSION	every sensitized participant, having internalised the ideals, joins in - selling them to everyone else.

The above should therefore be the objective of curriculum implementation. Strictly speaking, there is no distinct dissemination stage in the curriculum development process. Instead, SPID is in-built into the curriculum developer's regular interaction with the wider society.

VII

EVALUATING A CURRICULUM

7. This chapter introduces the reader to a very vast area, that of Evaluation. We shall discuss briefly the concept of Evaluation itself and then go on to outline briefly what is involved in evaluating a curriculum.

7.1 Evaluation in Education

The term Evaluation is often misused, even by persons who appear to be well versed in the discipline of education. To dispel the wrong notions often bandied around, we shall begin by spelling out WHAT EVALUATION IS NOT.

7.1.1 What Evaluation is not

(a) Most people associate evaluation with TESTING, but it is a lot more than that. Some form of testing will always form part of the evaluation task, but testing alone does not constitute evaluation.

(b) Even when evaluation does involve testing, it does not simply mean testing the learner. Other inputs into an educational programme (curriculum materials, teachers, schools and textbooks) do get evaluation. This also applies to processes (e.g. classroom interaction) as well as to outcomes (the economic, affective, cognitive, and psycho-productive) effects of an educational programme.

(c) Even if testing was to mean simply testing the learners, the testing does not have to come only at the end of a process, (end of a school year, term, or semester).

(d) Should evaluation involve testing, and testing the learner only, it still goes beyond merely testing for cognitive effects only. It embraces the other domains of behaviour as well.

7.2. What Evaluation really involves

7.2.1 Anybody involved in an educational programme (planning an overall national education programme, developing curricula, training teachers, helping in classroom learning, evolving adult education programmes) if he or she is to proceed in a

scientific way, seeks to pose a certain number of questions; as in the following examples:

(a) The Educational Planner

For what age cohort shall I plan for?

How extensive should my plan be?

How much money will be available for my education project?

How will the necessary manpower for the school system be produced?

(b) The Curriculum Developer

(i) What are the changing needs of society which should trigger off the task of curriculum development?

(ii) What objectives should my new curriculum seek to attain?

(iii) Who should be involved in my task of curriculum development?

(c) The Teacher Training

(i) What are my trainees like?

(ii) How do I carry out their training?

(iii) How do I ascertain that training has taken place?

(d) The Classroom Teacher

(i) What are the major characteristics of my students?

(ii) What exactly should I teach?

(iii) How should I teach?

7.2.2 Having asked such relevant questions, the educational personnel concerned seek appropriate answers to them. Let us again relate this to actual, possible examples.

(a) The Educational Planner

Seeks information from government sources and collects demographic data.

(b) The Curriculum Developer

Analyses government documents and scrutinises the qualifications and experiences of his possible collaborators.

(c) The Teacher Trainer

Interviews his students, examines curriculum guidelines, observes students in class.

(d) The Classroom Teacher

Gathers information on the background of his or her pupils, studies the content and layout of available materials, observes learners in and out of class and gives them tests.

7.2.3 Having sought answers to each question, by identifying his sources of information and gathering the information (data collection), the educational personnel studies his information carefully (analyses his data) and so becomes better able to take decisions in a more systematic way. If these activities (posing questions, seeking appropriate answers to them, and using the answers to take further action) were absent, the decisions would have been haphazard, and not systematic.

7.3 Towards a Definition

As can be seen from the above discussion, there is a systematic process of looking analytically into educational problems, asking appropriate questions, identifying sources of answers to the questions (persons, documents) studying the answers critically, and using these as a basis for further decision-making. This multiple-stage process explains what educational evaluation is all about.

7.4 Evaluating a Curriculum

Here it is also necessary to dispel certain wrong beliefs and practices. There is nothing like: Phases (A), (B), (C), (D) and then Evaluation.

Instead, what obtains is:
Phase A + Evaluation ⟶ B + Evaluation ⟶ C + Evaluation ⟶ D + Evaluation ⟶ E, etc.

In other words, Evaluation is in-built into every process of systematic curriculum development. What the curriculum evaluator does is to:

7.4.1 Pose appropriate questions at every phase :

(a) Does one need sex education in schools? -(Conception Phase)

(b) To what extent does this represent an improvement on existing materials? - (Try Out Phase)

7.4.2 Identify sources of information:

(a) Questions (a) in 7.4.1 addressed to teachers, students, and possible interest groups in society.

(b) Question (b) in 7.4.1 addressed to practising teachers.

7.4.3 Choose appropriate instruments for data collection: interviews, questionnaires, discussions, analysis of documents newspaper reports, official publications, personal observations.

7.4.4 Examine the data critically by summerising the information gathered in qualitiative or quantitative form. Qualitative reports will summarise general impressions (usually in running prose) while quantitative ones will use tables, figures, or graphs to justify conclusions.

7.4.5 Use the conclusions to decide what should happen next:

(a) If sex education is misconceived by a majority of those consulted, it is reframed.

(b) If 75% of teachers find a new material suitable, we can generalise its use.

(c) If a method of classroom interaction leads to children saying they are beginning to dislike a subject, we can change the method or get teachers to use the method more effectively.

(d) If certain groups find the use of certain words offensive (tribe, pagan, neo-colonialism), we use more acceptable terms.

(e) If teachers find the objectives of the new curriculum difficult to interpret, we reframe them.

7.5 The Major Focus of Curriculum Evaluation

The task of curriculum evaluation centres on the questions:

(a) To what extent are the objectives being achieved?
FORMATIVE EVALUATION (as the process goes on)

(b) To what extent has each objective been achieved?
SUMMATIVE EVALUATION (at the end of definite phases)

7.5.1 Furthermore, most curriculum evaluation tasks involve framework like the following:

Phase of Project	Major Questions	Type and Sources of Data	Instruments for Data collection
i) Conceptualisation	a) what exactly is needed? b) how can it be introduced? c) why is it needed? d) who should be involved?	a) opinions all sorts b) research reports of persons c) specialised literature and all sorts of written sources	a) questionnaires b) interviews c) library search d) analysis of documents
ii) Planning	a) to what extent is the rationale for the project clearly stated? b) to what extent do the objectives make sense? c) to what extent are the materials content and methods appropriate?	a) opinions of specialists in the subject in question, teachers other possible specialists and pupils.	a) questionnaires b) achievement tests c) rating scales d) observation of classes e) interviews f) discussions
iii) Material Development		b) Attitude and achievement measures	
Try-Out and Revision	a) to what extent are teachers able to interpret the new curriculum?	a) teachers b) school inspectors	a) questionnaires b) interviews c) classroom observation schedules
(iv) Centralisation	b) what specific outcomes have resulted from the new curriculum?	c) learners d) parents	d) achievement tests e) informal reports f) results of formal examinations
(v) Monitoring			

7.6 EVALUATION is thus a broad area which would require the reader's personal efforts in further reading and practice to grasp adequately. It pays however to be conscious of those bare activities (like testing) which in themselves alone do not constitute evaluation. The reader has to note what evaluation really is by going back to recall what evaluators actually do.

CURRICULUM EVALUATION is in-built into every systematic curriculum development exercise. The task to be performed involves seeking answers to questions as to the extent to which objectives are being or have been achieved. Various factors (the objectives, the teachers, the school system, the material/content/method, the environment) contribute to determining the extent to which objectives are being achieved.

Whether objectives are not achieved at all, fully achieved, or partially achieved, the evaluator's reaction is to choose the next course of action, based on a rational decision-making process.

VIII

INSIDE A CURRICULUM CENTRE

8. The purpose of the discussion was to enable participants to get to know what a Curriculum Centre is, and how it works. Prof. Pai Obanya chaired the discussion and the panelists were:

1. Mr. T. SINGWANE
2. Mrs. Z. GININDZA
3. Mrs. M. NXUMALO
4. Mr. H. NKAMBULE
5. Mrs. T. MASEKO

(all members of staff of the National Curriculum Centre, Manzini)

The discussion covered the following major areas:

(a) What is a Curriculum Centre?
(b) Is it strictly necessary to have a Curriculum Centre for curriculum development to take place?
(c) Major activities at the N.C.C.
(d) The N.C.C. manpower/staff and their experience:
(e) Nature and functions of a Curriculum Centre
(f) The Swaziland National Curriculum Centre - achievements and problems
(g) Implications of the discussion for curriculum work: In South Africa
(h) Questions and answer session

8.1 What is a Curriculum Centre?

A Curriculum Centre is a place where curriculum development is carried out, a unit which coordinates all national curriculum activities.

8.2 Is it necessary to have a N.C.C.?

The National Curriculum Centre is necessary because it is where curriculum development work is coordinated by qualified professional persons who are specialists in their various fields.

However, curriculum work, does not originate from the centre, but is triggered from societal needs i.e. professionals/specialists in the education field as well as the general public at all levels.

8.3 Major activities of a National Curriculum Centre

8.3.1 Activities start with questions asked in the form of expression of needs of society which are then followed up by directive from the Education Ministry, for example, changing the Swazi school system so as to reduce the secondary school curriculum from 5 to 4 years.

8.3.3 Drafting course materials

8.3.4 Production of teaching materials

8.3.5 Curriculum designing for operational tasks, e.g. producing pupils' work books and teachers' guides. The curriculum designer, however, can also commission other specialists where necessary as the curriculum designer cannot know everything.

8.3.6 Production UNITS by various sections in the form of prototype drafts, i.e. materials still to be subjected to trial and later on modified; UNIT that makes illustrations and the one that produces materials from workshops.

Coordination is a difficult task. Resistance to change does occur from time to time but gradually is easily overcome, especially when the curriculum centre has been approved by society.

8.4 The National Curriculum Centre: Nature, staff and functions

Manpower or staff at the centre consists mainly of selected teachers from schools and colleges of education, but could also be drawn from other sections of the Education Ministry.

Subject-panels constitute the most important organ of a curriculum centre.

The subject-panel comprise numerous bodies: teachers through the Subject Associations, relevant University and College of Education Departments, the Teacher Association, and the Inspectorate.

In some subject-panels members of the public who are specialists or knowledgeable in their fields are included. Subject-panels are chaired by the Senior Subject-Inspectors.

These various subject-panels in turn report to the Curriculum Coordinating Committee which is chaired by the Director of Education.

The Curriculum Coordinating Committee (C.C.C.) has the prerogative of approval or rejecting the subject-panel's work and making appropriate recommendations.

Through the help of the subject-panels which operate according to curriculum development guidelines, systematic work is carried out in a step-by-step manner.

When changes do come, which usually never just occur abruptly but gradually, it is always possible to accommodate them especially when one takes into consideration that the lifespan of a book or subject-material is four years.

It was pointed out that curriculum development is an expensive undertaking and things cannot just be jettisoned overboard merely to allow for change. It has got to be gradual.

Curriculum guidelines are also subject to reviewing from time to time.

The Swaziland National Curriculum Centre is situated as follows:

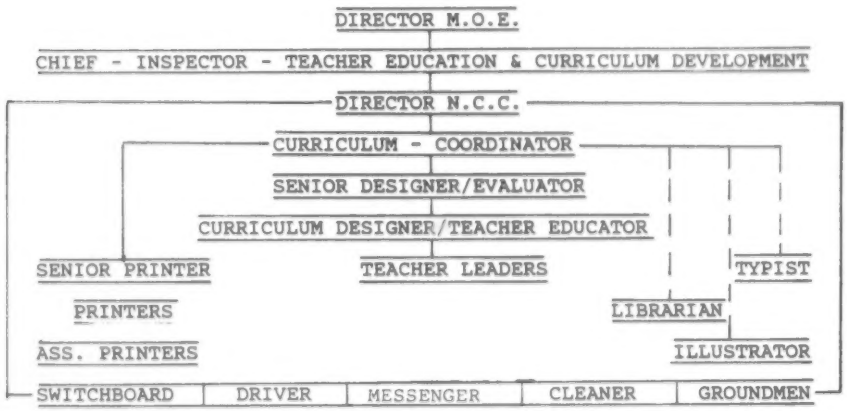


Fig. A: The Structure of Swaziland National Curriculum Centre

The National Curriculum Centre has its own philosophy of education manifested in the educational policies or political manifestos of the ruling party though this may not necessarily be true in all cases. This philosophy is unwritten.

The historical background of the Swaziland National Curriculum Centre is that it started as a project contracted by the Eastern Michigan University for USAID for nearly 10 years and was intended for the primary section. In 1983 the Primary section was linked to the secondary wing and therefore merged to form one centre it is presently.

Besides what one sees on the structure chart of the National Curriculum Centre, there are also out-reach points. Their main task is to distribute the centre's materials.

Working at the Curriculum Centre gives one an exciting and challenging experience because one comes into contact with various participants in the field of education on a wider and broader spectrum.

Furthermore, work at the Centre also makes one broad-minded in all spheres of education through being exposed to national and international educational meetings. The travelling that goes with it makes things even more exciting.

On the other hand, work at the centre can be tiring, hectic and one has to contend with a lot of criticism for which one needs an objective mind to cope with.

Nonetheless, people working at the Centre are envied by those outside. Perhaps a single most rewarding thing about working at the Centre is the credibility earned by the curriculum developer by the higher educational authorities.

8.5 Major achievements/problems

The following were outlined as the major achievements of the centre.

Training is one major achievement because people have been trained on the job while some have gone overseas for further training.

8.5.1 Inspectors, teachers and other Education Ministry authorities benefit a lot from the work of the N.C.C. Pilot school teachers have also become so trained that they in turn have become national trainers of teachers.

8.5.2 The centre has helped commercialize Swazi-produced textbooks because of its up to date knowledge for use in all primary schools in the country.

8.5.3 Examiners are now guided by the N.C.C., in the formulation of examination objectives.

8.5.4 The integration of subjects, such as Social Studies has been accomplished. All subjects designed at the centre adopt the integrated approach.

8.5.5 Contact with other organisations, e.g. ACO (African Curriculum Organisation) can be regarded as an asset.

8.5.6 The major problems highlighted by the discussants were lack of funds, lack of cooperation from the general public who at times do not respond to the questionnaires sent out to them.

There is also the lack of manpower in some subjects such as Science, shortage of evaluators, tendency by some people not to criticize where necessary and taking everything from the centre as final. These are some of the problems the centre experiences.

8.6 Implications for the discussions for curriculum work in the Republic of South Africa

Discussants felt that South Africa curriculum workers should think seriously of:

8.6.1 Exposure to other curriculum centres and educational systems is always necessary to enable the participants to adapt things to their own situation.

8.6.2 Relevance to national situations should be the major guide to action.

8.6.3 Criticism is always a statement of need and the curriculum developer has to take that as a cue of what can be done.

8.6.4 Teachers in South Africa will reach seemingly hopeless situations by thinking ahead of what is to be achieved in future.

8.6.5 Taking time on situational analysis is crucial, for that is the start of the process of curriculum development.

8.6.6 Involvement of members of the public from all walks of life at all stages in the work of the curriculum development is essential. They are jewels as resource persons.

9. The Questions session and their answers. The following questions were asked by participants:

9.1 How are pilot schools selected?

They are selected by random sampling

9.2 Has there been continuing training of manpower to perpetuate the curriculum work already begun?

Commissioned writers are trained and there is staff development programme once a year, and moreover, headmasters sometimes have training in curriculum development.

8.7.3 Possible contributions from other departments and sectors of the public to curriculum development in Swaziland

In Science, for instance, the Directors of Medical Services, Public Health and of Water Resources worked with a group of teachers from secondary schools, Colleges of Education lecturers and made a lot of input at all levels.

8.7.4 Are teachers getting employed at the National Curriculum Centre on promotion posts?

In a way, yes, since they move on a 'horizontal transfer' which places them on the College of Education grade if they have been ordinary teachers.

8.7.5 To what extent does politics influence the work of the National Curriculum Centre?

To a greater or lesser degree depending on what happens down at the "Inkundla" (local governments of chiefs).

8.7.6 To which Governing Authorities does National Curriculum Centre report?

All schools are classified as either Government or Goverment-aided schools with a few private schools. All are registered with the government and therefore follow the Government Curriculum.

8.7.7 Are teachers commissioned to develop curricula paid?

They are paid honoraria; but there is greater emphasis on the training they get by participation.

8.7.8 Are there still vestiges of the philosophy of the former foreign advisors to the curriculum centre?

A categorial answer is not possible. Foreign advisors did give the technical expertise, but the philosophy is still of the local Swazi people, notwithstanding the fact that foreign influence is left.

8.7.9 Pilot Schools - Any advantage over others?

There is no significant difference observed.

8.7.10 How can South African curriculum workers maintain contact with the rest of Africa?

- By travelling for purposes of study in African countries.

- Through membership in some educational organizations outside.

- and by exchanging views with other countries.

8.8.1 After materials have been piloted do teachers still need to adapt them?

Teachers are free to make their own suggestions during the four year period of the material at school so as to be taken into consideration when next the material will have to be reviewed. They are advised not to take the material as final as the Bible.

8.8.2 To what extent are the needs of exceptional children met?

They are met in so far as readiness programmes are provided and enrichment materials provided for the gifted.

8.8.3 How does the National Curriculum Centre monitor the progress of its curricula work at schools?

Visits by the National Curriculum Centre members themselves assisted by the Inspectors on a follow-up feed-back basis.

8.8.4 Is the Swaziland National Association of teachers involved and to what extent?

SNAT is represented in all bodies and in most subject panels. It is also represented in the higher level - the National Education Board and Curriculum Coordinating Committee.

IX

THE PRACTICING TEACHER AND THE TASK OF A CURRICULUM DEVELOPMENT

PANELISTS

1.	Mr. H.S. NKAMBULE	-	NCC
2.	Mr. A.H.N. SHABANGU	-	SNAT
3.	Mr. G.N. SAM	-	ATASA
4.	Mrs. J.T. NHLENGETFWA	-	NCC
5.	Mrs. A.N. GQIBITOLE	-	ATASA

9. The Purpose of the discussion was to look into the task of the curriculum developer and the practising teacher in facilitating change in education. The following questions were posed and a summary of the panel's responses are given below each question:

9.1 Who is the Teacher?

In response to this question, the panelists defined a teacher as any person, who by the nature of his or her job and his or her training, facilitates learning in a formal school situation.

9.2 Who is a Practising Teacher?

The panelists responded with this definition, that a practising teacher is the one in charge of a learning process and involved in a classroom situation, helping pupils to learn. Such an individual is directly in the frontline of curriculum development, working together with the curriculum developers.

9.3 At What Phases of Curriculum Development Should the Teacher Come In?

The panel expressed the view that teachers ought to be included from the initial phases of curriculum planning and development:

* Planning - Teachers are the first people to recognise that the curriculum has become irrelevant and that adaptations are necessary.

* Development of Materials - Here teachers participate as groups in writers' workshops, seminars and in-service activities and as individuals, such as commissioned writers or any

other activity where the individual has relevant expertise.

* Implementation - At this phase, the teacher uses the materials, adapts them where necessary, and makes recommendations for revisions or modifications.

* Evaluation - The teacher monitors the effectiveness of the materials and gives relevant feed-back.

9.4 To what Extent can the Practicing Teacher be called a Curriculum Developer?

Teachers tend to be conservative and to resist change. Their preparedness to experiment with new ideas about curriculum often appears limited.

9.5 What specific Roles have Swazi Teachers played in Curriculum Development?

Teachers participate as members of panels and review committees. They also participate, through subject associations, Science Teachers Association and as commission writers and pilot school teachers.

9.6 In the South Africa Context, How far can the Practising Teacher go?

Within the known constraints of South Africa teachers can make a start. They would have to go as far as the situation permits them. "Diplomacy" may be the way to go ahead. People have to remain professionals and emotional political action should not be allowed to becloud what people had come to Swaziland to learn.

9.7 Criteria for selecting Teachers to participate in Curriculum Development?

Teachers were asked to volunteer and from the pool of volunteers some were selected as pre-pilot teachers and others as pilot teachers were included because it was felt they had expertise and could contribute positively to the task of curiculum development. Part-random selection and part-judgement of capacity or competency was also used for the selection of teachers.

9.8 The South African Context

A start has to be made with the persons who participated in the WCOTP/ATASA Manzini Workshop on curriculum development. They should become the sensitizers. The few people who attended the current workshop constitute probably "a drop in the ocean".

A start has to be made, even though there are still problems.

In conclusion, general questions based on the discussions were posed as follows:

1. Can anything be done on return to South Africa?

South Africans have the ability to bring about change in education but there are many stumbling blocks on the way of innovators. A plan to have an Indian address black teachers in Ciskei on curriculum development was once stopped because government could not see various racial groups work together. It is possible for participants at the seminar to do something but the question is how far they can go.

2. What can be done to prepare the practising teacher for change?

People fear change because it makes them uncomfortable. The question is how to make teachers comfortable when change approaches. Resource centres can be used to make the teachers feel relaxed and feel free to talk about their problems.

3. Politics and Education - How can we influence change in a political vacuum?

The political situation in South Africa is a reality but teachers should not shield themselves behind this reality. A beginning can be made even before the political situation changes.

4. The Present-Day Teachers in South Africa: How does one ensure their commitment?

Certain people took teaching as the final resort - they lack direction and this direction has to come from both authorities and their teachers organisation. The young teacher needs his skills to be utilized and the best possible way of involvement is to be involvedin full participation in the teachers organisation.

5. Are Teachers represented in NCC Panels and is there any influence exerted by them?

SNAT is sometimes represented in theory and not in practice. Sometimes because of internal problems of the association they become excluded. Some of the subject organisations that feature prominently in NCC are also members of SNAT.

6. The "Conservatism" of Teachers: Who is to blame?

Education is itself a cycle of conservatism. Teacher training has to improve on a number of areas to make the teachers come out prepared to face the demands of their calling.

7. Are Curriculum Developers moving along with Teachers?

Teachers are participating through various panels, though their participation varies from place to place depending on the circumstances under which they work.

8. Is the Teacher "without Supervision"?

The answer is yes and no; YES in the sense that teachers are supposed to be supervised by principals and inspectors but the intensity of supervision is not satisfactory. NO because most teachers work in complete isolation. A proper working situation therefore has to be created for qualitative work even without supervision.

9. How can we best implement curriculum in South Africa in view of the fact that South Africa is "difficult"?

Teachers should be taught that they have to participate, as society tends to vent its anger on a curriculum handed down to teachers. Discussions within teachers organisations like ATASA and UTASA is one good method of performing this task.

10. The 'Lone' Teacher - What Role can she play?

Such people should be identified, and relied upon, but they should not be taken out of a classroom situation. They can get deeply involved in the work of the NCC, workshops and panels.

11. Pre-School Education in Swaziland - A General Question.

They used to be private, provided for persons who could afford sending their children to preschool centres. These days, the government has provided preschool education in all places within the Kingdom.

Preschool has moved from the Ministry of Interior to that of Education and there are now curriculum and inspection for preschool education. Teachers in preschool institutions used to be trained in Israel. These days they are trained in the country, in order to ensure that their objectives suit the national needs of the Kingdom.

Research is currently going on in the University on the current state of preschool education in the country. More personnel is being trained.

A P P E N D I C E S

I. Test your understanding

II. Sample Curriculum Guidelines

III. Workshop Participants

IV. Answers to Achievement Test

A.

TEST YOUR UNDERSTANDING

The following test covers the basic of what you have learnt. Write A, B, C, or D as appropriate in the boxes to indicate the correct option. Where no option is correct, write the letter E

1. The Term CURRICULUM can best be described as

   A. the programme of studies in a school system
   B. a list showing compulsory and optional subjects
   C. all continuous efforts to concretise educational dreams
   D. the art of stating objectives, content, and methods

2. The narrower conceptions of the term CURRICULUM differ from the broader ones in that

   A. they stress the importance of team work
   B. they tend to see curriculum as something fixed
   C. they deal with a single subject at a time
   D. they offer a narrow area of content to the learner

3. To say that a crisis situation is a major determinant of curriculum change is a way of saying that

   A. crisis situations usually erupt from time to time in society
   B. panic measures are often applied in curriculum work
   C. change is a way of terminating a crisis situation
   D. all other determinants combine to create a crisis situation

4. Which of the following is not a feature of panic aproaches to curiculum development?

   A. only a part of an overall problem is tackled at a time
   B. curriculum work is begun with a situational analysis
   C. it ususally creates more problems than it is intended to solve
   D. it gives rise to a motley of piecemeal efforts

5. An acceptable model of the process of systematic curriculum development must emphasize

   A. its un-ending nature
   B. its multiple components
   C. its systematic approach
   D. its emphasis on development

6. Educational intentions expressed in explicit, observable terms are known as:

A. educational goals
B. policy guidelines
C. behavioural objectives
D. the curriculum process

7. Proponents of curriculum change, innovation, and development are propelled by a continuous search for

A. qualitative improvement
B. curriculum development
C. alternative education
D. intelligent borrowing

8. What the layman refers to as 'curriculum' is really

A. objectives
B. textbooks
C. examinations
D. content

9. Which of the following should not be a criterion selection of content under normal conditions of systematic curriculum development?

A. the objectives of a curriculum
B. the extent to which it represents the present state of knowledge
C. the need to respect the essential unity of knowledge
D. the environment in which the curriculum is to be operated

10. The use of the modular method of content organisation is not advisable in the African situation because of

A. its being a borrowed idea
B. the unavailability of textbooks
C. the quality of the teachers
D. its having failed in other places

11. Which of the following is the most important advantage of a spiral form of curiculum content organisation?

A. it enables a good coverage of an extensive syllabus
B. it consolidates prior knowledge while broadening the learner's horizon
C. it enables the teacher to take account of the needs of various groups of learners
D. it makes for an orderly presentation of teaching-learning material

12. Integration as a method of curriculum organisation refers mainly to

A. a combination of related school subjects

B. a unification of different approaches to the same form of knowing
C. a group of teachers working together to spell out what should be taught
D. a discouragement of early specialisation by learners

13. Which of the following is not a "survival kit" type of curriculum content?

A. earning a living
B. lengthening your life
C. road traffic education
D. environmental education

14. Process objectives in a curriculum tend to concentrate very strongly on

A. measurable, observable behaviour
B. ways and means of achieving intended outcomes
C. the processing of information
D. psycho-motor objectives

15. In seeking to achieve the objectives of a curriculum, which of the following would be the most appropriate as material?

A. a textbook
B. a book produced by a team of specialists
C. a multi-media package
D. a reference material

16. Material adoption is distinguishable from adaptation mainly because

A. it is a wholesale acceptance of an existing system
B. it is a slight modification of an existing material
C. it is a great improvement on previous efforts
D. it is the work of a team of specialists

17. Who of the following should not form part of a team working on appropriate materials for a curriculum aimed at harmonious race relations in South Africa?

A. the man in the street
B. the social scientist
C. the teacher trainer
D. the social relations officer

18. Which of the following represents the most important distinguishing feature of curriculum materials?

A. its development is close to the curriculum
B. it represents the result of team work
C. it is organised in units
D. it has exercises built into it

19. Curriculum material development is not synonymous with simply writing mainly because

A. it is written by a large number of people
B. it could have non-literates as participants
C. it also involves assembling, collecting, and collating
D. it begins as a draft

20. A chain of textual materials is preferable to a single text mainly because

A. it takes more time to develp
B. it can be easily developed and modified to suit new situations
C. it can be put into very good use by well trained teachers
D. it is generally very well illustrated

21. Methods ensure interaction between

A. the teacher, the learner, and the material
B. the teacher, the learner, and the school
C. the teacher, the learner, and the community
D. the teacher, the learner, and the syllabus

22. Discussions, demonstrations, and practical activities become problems in fostering the objectives of a curriculum mainly when they are

A. handled by an incompetent teacher
B. not accompanied by detailed instructions
C. the only prescribed methods of teaching
D. used in the process of developing a new curriculum

23. Which of the following should the methods component of a curiculum give the greatest stress?

A. learning-that
B. learning-how and why
C. learning-where and when
D. learning-all

24. To implement a curriculum is to

A. hand it over to teachers in pilot schools
B. prepare teachers adequately for it
C. evaluate the early, rough drafts
D. take the people along with its development

25. In-servicing of teachers for a new curriculum should aim principally at their

A. accepting its philosophy

B. knowing its content and methods
C. changing their old teaching habits
D. imbibing entirely new ideas

26. Evaluating a curriculum involves asking the question:

A. what has been the major positive change in learner?
B. who is deriving the best form of benefits from the new curriculum?
C. what makes the new curriculum better than the old one?
D. to what extent have its objectives been achieved?

27. The real questions in the process of curiculum evaluation are asked during

A. the planning phase
B. the trial phase
C. all the phases
D. before the revision phase

28. When exactly does the practising teacher come into the task of curriculum development?

A. from the very beginning of the process
B. just before the draft is tried out in school
C. as soon as he is invited to comment on the curriculum plan
D. when the new ideas are due for wide-scale use in schools

29. The most active organs in a curriculum centre are

A. the curriculum developer
B. the material producers
C. the panels
D. the evaluators

30. The major task of a national curriculum development centre is to

A. get new and valid curricula to the schools
B. mobilise national resources for curriculum development
C. produce books that meet the needs of the society
D. relate societal goals to curriculum objectives

N.B. This test took me exactly ..... minutes to complete.

B.

EDUCATION IN SOUTH AFRICA
CURRICULUM GUIDELINES

Group G1 Members: 1. Mr. P.N. MEHLAPE
2. Mr. R. VAN DEN HEEVER
3. Mrs.P.L. TWALA

A. SITUATIONAL ANALYSIS

Education in South Africa is characterized by stringent government control and is based on the ideology of apartheid. Separate Education Departments exist for the different races with all policy making in the hands of the Whites. The state gives unequal financial allocation to the various departments. A core syllabus for all departments is laid down by the Joint Matriculation Board (A Whites only body) but by and large each department acts as a separate examining body. In comparing the Black Education Department with that of the Whites, one finds that the White schools generally have better monetary allocation, better equipped school buildings, better facilities and better teacher-pupil ratio. Black Education is generally regarded as inferior to that of Whites. Curriculum content in South Africa has been met by vehement opposition and rejection by Blacks who regard the school curriculum as a manifestation of Government policy in schools.

One therefore needs an alternative system which ensures the participation of all racial groups in all matters of education policy and administration, as well as in the entire political process. The envisaged alternative system of education should aim at:

1. Granting equal opportunities to all irrespective of race, colour and creed.

2. Catering for the different needs of the individual groups in the country.

3. Developing a new curriculum which meets the requirements of point 1 and 2.

4. Democratising the system of educational management.

OBJECTIVES

One would expect the product of such a democratized system at the end of basic education to be in a position to:

1. Follow oral discourse on subjects within his range of experience and respond appropriately.

2. Read a text of an appropriate level at an appropriate speed.

3. Give correct answers focussing on the content of what has been read.

4. Give a meaningful summary in his own words of the content of text.

5. Describe events, situations, phenomena at his level of experience using appropriate written form of language.

6. Write using appropriate spelling, punctuation marks, words, expressions and sentences to describe things within this range of his experience.

7. Identify major fauna and flora in his immediate environment.

8. Classify these according to acceptable scientific methods of classificaiton.

9. State the conditions under which each species thrives, lives and reproduces.

10. Numerate: Count up to 10 000

11. Recognize numbers given at random: 89, 98, 64, 43, 901

12. Associate figures with quantities up to 10 000

13. Perform the four basic operations up to four digits.

14. Use the Maths Principles in buying, selling, and obtaining change.

15. Interpret calendar-days, week, months, years. Use the clock or watch.

16. Use standard measures like ruler, tape to determine distance.

17. Examine a problem facing him, e.g. how to spend money, how to make up his mind between two decisions, who to choose as his friends.

18. Seek and obtain information using such aids as a dictionary, atlas and encyclopaedia.

19. Use various tools in order to make a table, or fix an electrical plug or replace a window.

20. Assemble various sections of a model like a table or cupboard in order to have a finished product.

21. Make certain measurements when planning a model such as a table or a chair.

22. Act appropriately in various social groups: home, church, school, sport, neighbourhood, and wider society.

OBJECTIVES	CONTENT	MATERIALS	METHODS	EVALUATION PROCEDURES
1. Follow oral discourse on subjects within his range of experience and respond appropriately 2. Read a text at an appropriate speed 3. Give correct answers focussing on the content of what has been read 4. Give a meaningful summary in his own words of the content of the read text 5. Describe events, situations, phenomena at his level of experience using appropriate language 6. Write correctly, using appropriate spelling	Basic Language Skills (Listening, speaking, reading, writing)	Oral and written language materials at the appropriate level	* Story telling by teacher. Questions and Answers * Listening to tapes, radio by children * Conversation - oral, Action chain method Dialogue, debate, discussions * Teaching pronounciation skills by means of recitation reading * Picture-reading (Flash-cards) Loud reading, Silent reading, Model reading, Shadow reading * Reading and Comprehension * Teaching method of writing by means of fine motor coordination activities using sand, paper, clay, crayons-tracing - colouring * Practical activities e.g. writing of compositions, letters, reports, minutes	1. Discussions and story re-telling 2. Reading Tests 3. Comprehension Tests 4. Summary writing 5. Oral Tests 6. Composition Writing
7. Identify major fauna and flora in his immediate environment 8. Classify these according to accepted scientific methods of classification.	Experimental Science	Objects in the environment (animals, rocks, plants)	* Lecturing on types of flora and fauna * Field trips during which specimens are collected * Practical activities in class whereby collected specimens are classified	7. Practical Work Tests during field trips 8. Completing Classification Charts.

OBJECTIVES	CONTENT	MATERIALS	METHODS	EVALUATION PROCEDURES
9. State the conditions under which each each species thrives, lives, reproduces.		Purchasable Improvised materials	* Labelling of specimens	9. Tests involving classification of specimens 10. Practical plant growing activities
10. Count up to 10 000 11. Recognise numbers given at random, e.g. 89, 98, 64, 43, 901 12. Associate figures with quantities up to 10'000 13. Perform the four basic operations up to four digits 14. Use Maths principles in buying, selling and obtaining change 15. Interpret calendar days weeks 16. Use standard measures e.g. ruler, tape to determine distance	Basic Mathematics	Counting Addition Subtraction Multiplication Aids: Both Teaching and Learning Charts Calculators Calendar Watch	* Lecturing of various Maths principles * Demonstrations on counting aids, or by improvising with collecting bottle tops, tins, stones etc. * Drilling by means of various exercises * Practical activities, eg. calculation exercises, play shop, measuring areas, liquids, mass	11. Calculation, Computation and measurement related activities
17. Examine a problem facing him, e.g. how to spend his money, how to make up his mind between two decisions, whom to choose as friend	Living in Society	Resource persons Other oral audio-visual sources Textual Materials	* Discussion of problems * Confrontation with realities * Personal interviews	12. Debates and Discussions

OBJECTIVES	CONTENT	MATERIALS	METHODS	EVALUATION PROCEDURES
18. Seek and obtain information using such aids as a dictionary, atlas encyclopaedia	Basic Language Skills	As listed on top	* Practical research activities by children under supervision of teacher or librarian	13. Extensive reading exercises
19. Use various tools in order to make a table or fix an electric plug or replacing a window	Designing and Constructing	Tools for: a) Designing - drawing boards - rulers - paints b) Creating - textiles - clay - wool - scrap iron - paper	* Lecturing on safe and effective use of tools	14. Test on safety standards
20. Assemble various sections of a model like a table or cupboard in order to have a finished product			* Demonstration of handling and use of tools and the construction of a model by the teacher	15. Describing a practical model
21. Make certain measurements when planning a model such as a table or chair			* Practical activities by pupils in constructing their own models	16. Drawings of exploded view of model
22. Act appropriately in various social groups e.g. home, church, school, sports, neighbourhood, and wider society	Living in Society	Resource persons Oral, Audio Visual Sources Textual Materials	* Discussion of social dilemmas * Role-play of various situations in class * Panel of speakers from different cultures address class	17. Debates and Discussions

AN ALTERNATIVE CURRICULUM OUTLINE

Group G2 Members: 1. Mrs. F.X. GASA
2. Miss P.N. DLANI
3. Miss M.N. MPOLA

A. SITUATIONAL ANALYSIS

Education in South Africa is characterised by inequality in terms of per capita expenditure. This results in unequal education facilities provided for the various racial groups in the country. It is also characterised by racial segregation, which gives rise to separate educational institutions. This in turn gives rise to racial prejudices which destroy harmonious racial relationships in the country.

One therefore needs an Alternative National Policy that will eradicate existing discrepancies, such as separate educational institutions and provide equal educational opportunities for all racial groups to achieve harmonious relationships.

B. TOWARDS AN ALTERNATIVE SYSTEM

An alternative education system, which should remedy these defects, should aim at:

(a) Catering for the needs of all racial groups in the country.
(b) Getting rid of the inequalities in government expenditure, for instance, spending more money on White education than is spent on other racial groups.
(c) Improving racial relationships by removing the cause of dissatisfaction such as racial segregation.
(e) Encouraging full participation by all racial groups in decision making.

Objectives for an Alternative System

In more specific terms, it should be possible for the learner, after primary education, to be able to:

1. State the major social characteristics of his own racial group in South Africa.

2. Name the major differences between the racial groups in R.S.A.

3. Outline the major contributions by each racial group with regard to culture.

4. State the names of great people who have contributed to the political development of South Africa.

5. Express views on the aspirations of the different groups.

6. List programmes that can be embarked upon to meet the needs of the people.

7. Enumerate the injustices of inequality per capita expenditure.

8. Sing the National Anthem to show acceptable evidence of patriotism.

9. Adapt, modify situations to suit him or her, extracting what is good from other peoples' way of life.

10. Recognise areas where contribution is required.

	OBJECTIVES	SUGGESTED CONTENT	MATERIALS	METHODS	EVALUATING PROCEDURES
1.	State the major characteristics of his own racial group in RSA	The Learner's own racial group	Oral traditions of Xhosa, Zulu, Sotho, Swazi, Written Sources on the People. Physical Physical Aspects, e.g. Traditional dresses, Cultural artifacts, e.g. Initiation Schools Trad. Weddings	Resource Persons or Individual Students to collect material. Discussion, Excursions Practical approach geared at encouraging students to attend Trad. weddings, Initiation Schools, National Service for White Youth, Confrontation with realities.	Observations Discussions
2.	Name the major differences between the racial groups in RSA	Other Racial Groups in RSA	Oral and Written Sources Physical and Cultural artifacts	Discussion, Lecture Confrontation with realities	Formal Testing Observation Oral Composition
3.	Outline the major contributions by each racial group with regard to culture	Cultural Contributions by the various racial groups	Cultural & Physical artifacts as in I & II. Oral and Written Sources as in I and II	Lecture Discussion Confrontation with realities	Formal Testing Observation Oral Compositions

OBJECTIVES	SUGGESTED CONTENT	MATERIALS	METHODS	EVALUATING PROCEDURES
4. State the names of great people who have contributed to the Political Development of RSA	Great names in the history of RSA	Written & Oral Sources. Biographies of great South Africans. Musical Recordings commemorating the life of South Africans	Lecture Discussion Confrontation with realities Narrative	Oral Composition questions based on the Subsistence of Discussions and debates
5. Express views on the Aspirations of different groups	Aspirations of different groups	Written & Oral Sources Physical artifacts Biographies	Lecture Discussion Discovery	Open-ended questions Panel discussionsel
6. List programmes that can be embarked upon to meet the needs of the people	Cultural Programmes like Social Clubs	Oral traditions Written Sources Practical Activities Boy-Scouts, Short skits, drama geared at moral lessons	Practical activity Excursions Confrontation with realities	Observations Discussions
7. Enumerate the injustices of inequality per capita expenditure	Value of equal expenditure in education	Written Sources Semi-textual materials Current newspapers and financial magazines, Gvt. Gazettes	Excursions to monuments. Discussion Confrontation with realities	Observations Discussions Debates

OBJECTIVES	SUGGESTED CONTENT	MATERIALS	METHODS	EVALUATING PROCEDURES
8. Sing the National Anthem to show acceptable evidence of Patriotism	The constitution and other major instruments of the Nation e.g. National Anthem, National Coat of Arms, etc.	Written & Oral Tradition Musical Recordings	Practical Activities Discovery Telling	Observation Discussions
9. Adapt, Modify situations to suit him, extracting what is good from other groups' way of life	Learning other peoples' way of life	Written & Oral Tradition Current newspapers Media coverage Traditional & Cultural Artifacts	Confrontation with realities Discussion, Discovery Practical Activity through Excursions	Observations Debates Discussions
10. Recognise areas where contribution is required	Value of charitable organisations in society	Oral tradition Semi-textual materials like Charts, Media Coverage	Discussion Lecture Excursions	Structured Discussions Debates

ENGLISH IN SOUTH AFRICAN PRIMARY SCHOOLS

Group G3 Members: 1. Mrs. Alice N. GQIBITOLE
2. Mr. Tamsanqa M.HJOLOZA

A. BRIEF SITUATION ANALYSIS

Only three language skills are provided for in the programme, i.e. speaking, reading and writing. The listening skill has been left out. Informal teaching of language is through the use of visual aids, story telling, dramatization and use of dialogues. Written work is based on oral work and on topics suggested by the teacher and on narratives and letters. Class readers, language text books are provided but not suitable.

As a result, learners are not usually able to express themselves orally and in writing on everyday experiences. They are also not usually able to read efficiently or to express themselves appropriately in writing and to read with comprehension.

B. NEW OBJECTIVES

The activities of a primary school going child at the age of 6 to 10 are play, work, school, enquiry... they should be able to:

- interact with members of the family
- interact with visitors at home
- interact with peer groups
- carry out appropriate school activities
- explore their immediate environment.

C. NEW CURRICULUM GUIDELINES

Topics for oral work should be based on everyday experiences of both urban and rural pupils. Pupils should be allowed to suggest topics for discussion. Visuals relevant to the lives of the children should be used to stimulate free expression and to develop the speaking skills. The listening skills should be developed. There should be integration of language skills. The implementation and evaluation of work done should be built in the materials. Spelling charts and pictures should be used to stimulate interest and encourage free expression. Suitable readers and textbooks should be used.

Group 3

SUGGESTED ACTIVITIES WITH MATERIALS

	SUB.A. - SUB.B.			STD I - STD III			STD IV. - STD V STD		
	ACTIVITIES	MATERIALS	LANGUAGE.I.	ACTIVITIES	MATERIALS	LANG.ITEMS	ACTIVITIES	MATERIALS	LANG.ITEMS
In my home	Listening and Retelling Stories	Pictures of Mother Father Brother Sister	Oral activity Present simple tense	Listening Reading Writing	Garden tools Household Utensils toys	Words for comparison Short, tall young, old big, small	Speaking Reading Writing	Pictures charts Spelling Charts	Present simple Past tense Future Number
With my friends	Listening to stories about friends	Toys Bicycles Dolls Vocabulary	Present simple tense	Dialogue Reading Writing	Toys Picture of Bicycles and Tools	Simple Comprehension exercises	Dramatizing story telling Letter writing	Pictures Posters Alphabet Charts	Letter writing Present simple Past
Our Neighbours	Listening to stories about neighbours	Pets Animals & Birds	Present simple tense	Listening Speaking Reading Writing	Neighbours Car, House Fence, gate	Vocabulary to given Materials Letter writing	Listening Reading Writing Letters	Posters Signs of the road Pictures	Narrative and descriptive Words
At School	Dialogue Practice answer to Questions	Classroom Pictures Other real objects at School	Present simple tense	Speaking Reading Writing	Buildings School Furniture Pictures	Substitution table Present simple tense	Writing Narratives Reading Writing Letters	Pictures Charts Spelling Charts	Building Sentences Comprehension Present Tense

	ACTIVITIES	MATERIALS	LANGUAGE.I.	ACTIVITIES	MATERIALS	LANG.ITEMS	ACTIVITIES	MATERIALS	LANG.ITEMS
This Town of Ours	Dramatisation oral description of places	Pictures of Shops Post Office Church	Oral work and Dramatisation	Listening Speaking Reading Writing	Pictures Shopping Post Office Church	Vocabulary Spelling Complete Simple Sentences	Dramatization Narratives Reading	Text Books Readers Work Books	Simple Descriptive Sentences Comprehension
Everyday Activities	Oral Answers to Questions	Toys and any other improvised playing materials	Present simple tense oral work	Speaking Dramatisation Reading Writing	Pictures Showing People and their way of life	Comprehension, Simple Narratives Gender Vocabulary	Narratives Letter Writing Reading	Text Books Readers Charts Work Books	Nouns and Verbs Present Simple Tense
Resting & Playing	Dramatising Play time	House furniture Lawn, Kitchen Radio, TV	Present simple tense Oral work	Drawing Playing Singing Story telling	Songs apparatus for games	Question and answer to vocabulary	Reading Singing Letter Writing	Spelling Charts Picture Stories	Present Continuous Past Continuous tenses.

SCIENCE TEACHING IN THE PRIMARY SCHOOL

Group G4 Members:
1. Mrs. C. MOLEFAGKOTLA
2. Miss N. DLAMINI
3. Miss M. SONN

The programme of science at the primary level begins at sub-B to Std 2 where environmental studies is dealt with. Plants and animals in the child's immediate surroundings are observed. From Std 3 to Std 5 the external features and habitat of plants and animals are taught. At this stage physical science is introduced by studying air and water.

The teachers often use textbooks and chalkboard at the lower levels. At higher levels there is often more teacher-talk than pupil participation due to the lack of facilities such as equipped laboratories.

The outcome is that pupils often become examination oriented, not being able to correlate science taught at school with their everyday life.

An alternative programme of science education at the primary level should remedy these defects by reducing the negative impact of examinations and relating school science more closely to everyday life.

At the end of primary education such an alternative form of science education should make the learner be able to:

1. describe the ways of science (i.e. the methods of studying natural phenomena),

2. identify the animals and plants in his environment, the conditions under which they thrive and multiply.

3. classify the animals and plants in his environment according to their characteristics,

4. state the uses of animals and plants to man, e.g. as food, drugs and fertilizers,

5. observe (by using the naked eye or hand lenses) different specimens of animals and plants in his environment,

6. record his observations by analysing different specimens of plants and animals,

7. draw appropriate conclusions from observation,

8. mould and draw what he has observed,

9. demonstrate the enthusiasm towards what he has learnt by performing experiments on his own,

10. extract useful substances from natural elements in the environment,

11. transform, using appropriate methods, substances derived from nature,

12. explain significant features of the natural environment: wind, thunder, lightning, rainfall, air and gases, solids and liquids,

13. relate scientific principles to preventative and curative health activities,

14. relate scientific principles to the practice of agriculture.

	OBJECTIVES	CONTENT	MATERIALS	METHODS	EVALUATION PROCEDURES
1.	Describe the ways of Science i.e. the methods of studying natural phenomena	What Science does	5 senses	Discussion, Demonstration, Observation, Practical activity, Research	Test of description assignments practical tests
2.	Identify the animals and plants in your environment and the conditions under which they thrive	Animals in in the environment Plants in environment	Live animals e.g. cat, insects, etc. Charts, pictures, models, microscopes, handlenses, knives, etc.	Confrontation (field trips) Practical activity Discussion Research (small group)	Classification and identification test labelling of drawings Practical tests.
3.	Classify the animals and plants in your environment according to their characteristics	Plants and animals in the environment	Field trips, plant charts, pictures, microscopes, handlenses, digging tools	Confrontation (field trips) Discussion Practical activity	Tests of classification and observation
4.	State the uses of animals and plants to man e.g. as food, drugs, fertilizers,etc	Plants and Man	Samples of by-products of animals Samples of by-products of plants	Confrontation (resource people) Discussion Research	Observation tests Practical tests Observation tests Practical tests
5.	Observe (by using the naked eye, handlenses etc) different specimens of animals and plants in your environment		Handlenses	Practical activity	Labelling of diagrams

OBJECTIVES	CONTENT	MATERIALS	METHODS	EVALUATION PROCEDURES
6. Record observations by analysing different specimens of plants and animals.				Analysing tests Observation tests Practical tests
7. Draw appropriate conclusions from observations.				Observation tests Labelling diagrams
8. Mould and draw what he has observed	Plants and Animals and Man	Specimens of plants Specimens of animals	Discussion Practical activity Research	Drawing sketches Labelling sketches practical work Practical tests, analysing test, observation test
9. Demonstrate the enthusiasm towards what he has learned by performing experiments on his own				
10. Extract useful substances from natural elements in the environment	Natural Substances	Raw materials and their by-products e.g. fuel, rocks, of different types	Confrontation (Resource People)	Practical tests
11. Transform (using appropriate methods) substances derived from nature	Substances derived from nature	Samples of by-prod. of raw-materials, e.g. oil, fuel, timber,paper,etc.	Confrontation (Resource People) Discussion Research	Practical tests Oral tests analysing tests observation tests

OBJECTIVES	CONTENT	MATERIALS	METHODS	EVALUATION PROCEDURES
12. Explain significant features of the natural environment e.g. wind, thunder, rainfall, air	The Physical environment	Models e.g. windmills, bottles, jars, plastic bags, etc. Different soiltypes, films	Demonstration Observation Discussion Practical activities	Observation tests labelling of specimens, Oral tests
13. Relate scientific principles to preventive and curative health activities	Science & your health	Natural products e.g. herbs, charts, by-prodcuts of natural products, e.g. drugs	Resource People - Confrontation Discussion Practical activity	Practical tests Observation tests Oral tests
14. Relate scientific principles to the practice of agriculture	Science & agriculture	Soil types, crops charts, pictures, microscopes	Confrontation - excursion, Practical activity Reseach, Discussion	Practical tests Observations

MATHEMATICS AT PRIMARY SCHOOL

Group G5 Members: 1. J. THULI NHLENGETFWA
2. J.P. WEIDEMAN

A. SITUATION ANALYSIS

Primary school teaching of mathematics contains the following:

a) The number concept which involves sequencing, counting and comparing.
b) Mastering of the basic operations: addition, subtraction, multiplication and division.
c) Simple geometry to include flat shapes, and solid shapes such as triangles, parallelograms and prisms: their names, properties and construction - drawing.
d) Measurements which include: length, area, volume, capacity, perimeter, mass, money and time all in the metric system.

As far as teaching and learning is concerned, there is no provision made for supplementary materials such as teachers' guides, work books and semi-textual and non-textual materials. Too much emphasis is placed on role-learning and the child (learner) is not taught to reason. For instance, reciting of tables instead of concretely developing it, as groups of numbers. There is a very limited knowledge of basic geometry because of too much emphasis on theory and not enough practical work, e.g. lack of the practical use of measuring instruments like trundle wheel, measuring cylinders, arm-balances, etc.

Because of the limitations mentioned above, the overall results achieved in mathematics are unsatisfactory.

B. TOWARDS AN ALTERNATIVE SYSTEM

Less emphasis should be placed on rote-learning and teachers should be more geared in the direction of teaching the learner to reason and develop concepts before memorising.

Practical work should play an important part in the teacing of geometry. Learners should develop the various concepts and properties of geometric figures by doing practical work in the classroom.

C. OBJECTIVES

At the end of the primary course the learner should be able to:

1. Count from 1 to 100 using counters.

2. Count in multiples of: 10 up to 1000
   100 up to 100 000
   1'000 up to 1 000 000
   } using Dienes blocks and abacuses

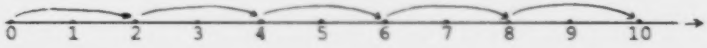
3. Compare number values using the signs greater than (>) equal to (=) and smaller than (<).

4. Add a sequence of not more than 5 numbers, giving a sum not greater than a 7 digit number.

5. Subtracting smaller numbers from bigger ones giving differences not greater than 7 digit numbers.

6a. Develop competence in multiplying numbers by using counters to group numbers e.g. 3+3+3+3= 4X3

b. Identify on a number line a multiplica on sentence:



The number line shows that 5 x 2 = 10 and one can now derive that 10 ÷ 5 = 2.

7. Identify geometric figures by using concrete objects and illustrations.

8. Draw geometric figures from memory from the actual names given.

9. List the properties of geometric figures by actually measuring the sides of flat shapes such as equilateral triangles, parallelograms, etc.

10. Calculate the perimeter of regular and irregular flat shapes by means of measuring the sides and without using formulae.

11. Measuring the:

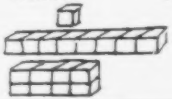
   a) length or distance using a ruler, trundle wheel and tape measures
   b) area using a grid of centimeter squares
   c) volume of solid shapes using:
      i) displacement method for irregular shapes
      ii) centicubes for regular shapes

d) capacity of containers by means of measuring cylinders
e) mass of solid bodies using armbalances, spring balances and bathroom scales.

12. Introducing the nation's monetary system in order to calculate:

i) interest on borrowed money
ii) expenditure
iii) currencies
iv) shopping budgets, etc.

13. Measurement of time in order to estimate intervals of seconds, minutes, hours, days, weeks, months, years, BC and AD.

OBJECTIVES	CONTENT	MATERIALS	METHODS	EVALUATION PROCEDURES
1. Counting from 1 to 100 using counters counting 2. in multiples of 10 up to 1 000 100 up to 100'000 1000 up to 1 000'000	counting up to one million	Counters, number flash cards abacuses & dienes blocks 	1 Demonstration of number flash cards by teacher and practical use of abacuses and dienes blocks in groups. 2 Grouping counters and dienes blocks in multiples of 10, 100 and 1000. First the whole class, later smaller groups	Tests involving counting of numbers. Could also be done in practical way, e.g. "How many days from 12th Feb to 14th May 1988?"
3. Compare number values using the signs >,=,<	Number value sequencing & comparing	Flashcards 56 > = < abacuses	3 Discussion of pairs or sets of numbers compared by using >,=,< e.g. 19 < 36	Tests to see whether signs >,=,< are understood
4. Adding a sequence of not more than 5 numbers giving a sum not more than 7-digit numbers	Additions with sum not greater than 7 digits	cards, abacuses, dienes blocks, number-line charts	4 Use of data collection and practical situations the child experiences in his environment, e.g. population figures in household, street, suburbs, city	Tests on addition to verify if operation has been mastered.
5. Subtract smaller numbers from greater ones giving differences not greater than 7 digits	Subtractions with subtrahend not greater than 7 digits		5 Word problems: "If your father has 35 chickens & 17 die during a hailstorm, how many are left?"	Tests on subtractions, including word problems

OBJECTIVES	CONTENT	MATERIALS	METHODS	EVALUATION PROCEDURES
6. Developing competence in multiplying numbers with a product of not more than 7 digits	Multiplications with the product not greater than 7 digits	cards, abacuses, dienes blocks, number-line charts	6 Practically displaying "multiplication sentences using concrete materials such as number lines, dienes blocks. The child working and teacher acting as guide.	Oral tests on multiplication tables to precede written tests on multiplication
7. Divide up to 7 digit number by one or two digit numbers with and without a remainder	Division with the dividend not greater than 7 digits		7 Use of number lines and dienes blocks. Word problem: "If 25 oranges are shared by 7 children, how many does each get.	Word problems could also be given to test comprehension.
8. Identifying geometric figures using concrete objects and illustrations.	Geometric shapes: flat & solid	Attribute shapes flat and solid. Magazines, catalogues, scissors, glue	8 Identification by sorting from a mixture of different solid shapes by pupils after having discussed (demonstrated) their various properties	Practical tests of identifying attribute shapes
9. Drawing geometric figures from memory from actual names given.	Geometric shapes: flat & solid	Drawing book, colour pencils & mathemat. instruments	9 Practical work (constructions) using mathematical instruments	Sheets containing drawings of shapes which have to be identified
10. Listing the properties of geometric figures by measuring the sides of flat shapes	Properties of geometric shapes	Charts, drawings, pictures from	Practical exercise of studying the different shapes and identifying their properties by means	Identifying solid & flat shapes from their listed properties. Ask learners where

OBJECTIVES	CONTENT	MATERIALS	METHODS	EVALUATION PROCEDURES
such as equilateral triangles, parallelograms, etc.		magazines, catalogues attribute shapes, rules.	of measurement. Thereafter listing the names of the various shapes with similar properties	solid shapes have been applied in architectural features
11. Calculating the perimeter of regular and irregular flat objects by means of measuring the sides and without formulae.	Perimeter calculations	Rules, attribute shapes, drawings, tape measures & trundle wheels	Practical use of tape measure and trundle wheel for measuring the perimeter of tables, classrooms, etc.	Tests on perimeter
12. Measurement of: a) volume of solid shapes using i) centicubes - regular shapes ii) displacement - irregular shapes	Measurement of volume	Centicubes, water displacement cans, measuring cylinders, stones, prisms	Demonstration by teacher to class and then by children in groups using cm-cubes fitted to produce different shapes of same volume. Displacement of water for irregular shapes using a measuring cylinder.	Showing by use of centicubes that two or more bodies can have the same volume but differ in shapes
b) capacity of containers using measuring cylinders	Measurement of capacity	Measuring cylinders, household containers such as pots & cups	Practically using household containers. Learner pours water from cup into measuring cylinder.	Practical tests

OBJECTIVES	CONTENT	MATERIALS	METHODS	EVALUATION PROCEDURES
c) length and distance using a rule, tape measures & trundle wheels	Measurement of mass	Rules, trundle wheels tape measures	Learners use a trundle wheel to measure the distance from home to a nearby shop, giving the answer in metres.	Estimating the length of (height of) objects in the child's environment
d) mass of solid bodies using arm balances, spring balances, & bathroom scales	Measurement of mass	arm balances spring balances bathroom scales	Practical demonstration by teacher and group work by leaners using mass instruments. Child goes home and determines average mass of family.	Practical tests
e) area using a grid of centimetre squares	Measurement of area	centimetre grids measuring instruments	Grid of centimetre squares given to learners to determine accurately the area of rectangles & estimating the area of rectangles, parallelograms, circles,etc.	Practical tests
13. Introducing the nation's monetary system in order to calculate interest on borrowed money, expenditures, currencies, shopping budgets, postal calculations	The monetary system	Actual coins, or replicas thereof made from paper & cardboard	Simulating real-life situations such as shops, banks post-offices, with learners playing the roles of shop-assistants, bankers, post-masters.	Arithmetical problem-solving exercises

OBJECTIVES	CONTENT	MATERIALS	METHODS	EVALUATION PROCEDURES
14. Measurement of time in order to estimate intervals, e.g. seconds minutes, hours, days, weeks, months, years, BC and AD	Local time, international time, e.g. 08h15 Countries having more than one time zone.	Demonstration clock to teach time. Calendars. Ancient history books. Bible.	Demonstration lessons by teacher. Learners playing an active part by moving hands of clock, etc. Identifying the birthdays from a calendar.	Practical tests where learner shows stipulated times on demonstration clock, or reads time from clock. Calculations involving different time zones.

AFRIKAANS IN THE PRIMARY SCHOOL IN SOUTH AFRICA

Group G6 Members: 1. Mr. G. SAM
2. Mr. B. NTLANGANI

A. SITUATION ANALYSIS

In the primary school the children are taught to read in Afrikaans. A reader containing stories is provided. The teacher also teaches grammar by giving lists of exercises: singular and plural, diminutives, simple sentences. The simple sentences must lead to short paragraphs in preparation for essay writing in later years. Emphasis is on oral work. The children are taught verses to memorise and they should be able to answer simple questions such as "Good morning class", response "Good morning teacher".

It is handled in most cases by teachers who cannot speak the language properly. Outside the class the children do not use or hear the language. Exposure to the language is poor. Teachers teach through the mother tongue, for example Xhosa. The pupils learn without really understanding what is being done. The book prescribed is the only source of information in most cases. No supplementary materials for enrichment.

The outcome is that at the end of the primary school level the children still do not understand the language, nor can they use it. Their writing ability is still inadequate. They cannot read and comprehend a written piece properly and they cannot communicate at a basic level. They develop hatred for the language because they have no proper grounding in the primary school.

B. TOWARDS AN ALTERNATIVE SYSTEM

Good teachers who are dedicated and have a love for the language should teach it in the schools to lay a good foundation. More non-textual materials should be brought in by the teacher to help him/her in his/her lessons. The pupils need to be exposed more to the language in the following ways:

- contact with Afrikaans first language speakers
- through informal talks
- listening to the spoken word
- participating in debates
- responding to simple questions and instructions
- being exposed to ways of life of the Afrikaner
- read materials to encourage creativity

C. OBJECTIVES

- to relate a story to his friends/teacher/people, heard over the radio, television,
- to read a written text on appropriate subject matter to his level of experience at an appropriate speed
- to distinguish the different significant phases in the history of the Afrikaner
- to answer questions on text read on appropriate topics
- to devote a considerable time to extensive reading of creative work (at his level of experience) in Afrikaans.

	OBJECTIVES	CONTENT	MATERIALS	METHODS	EVALUATION PROCEDURES
1.	Tell or Retell a story to friends/teacher/ people heard over the radio/television	Stories - Live or recorded Stories direct or reported	Recorded on tape - radio	Telling of stories Discussion - lead by teacher or group leader Practical activities	1) Observation in how pupils react in discussion 2) Test and Evaluate comprehension level
2.	Read a written text on an appropriate subject matter to his level of experience at an appropriate speed	Written text on a variety of sources	Texts: - magazines - books - newspapers - pamphlets	Demonstration of certain important features in text to make it concrete Tell - some part for relating	1) Test how many words pupil can read per given time (speed) 2) Test interpretation of written material
3.	Answer questions on text that has been read	Written text from variety of sources	Texts: - magazines - books - newspapers - pamphlets	Question and answer either oral or written Telling when question needs purely oral answers	1) Test knowledge of pupil and comprehension ability through question and answer techn.
4.	Distinguish different significant phases in the history of the Afrikaner	Significant phases in history of Afrikaner	Oral tradition written material, Physical & Cultural artefacts, eg. dress, talk, meals, etc.	Practical activities - imitate way of life - tools used etc. Demonstrate things Lecture and Delecture	1) Observe level of sophistication in showing distinction in different phases of Afrikaner history. 2) Debate - skills testing

	OBJECTIVES	CONTENT	MATERIALS	METHODS	EVALUATION PROCEDURES
5.	Acquaint himself in appropriate ways of life of Afrikaner	Afrikaner way of life	Oral tradition written material, Physical & Cultural artefacts, eg. dress, talk, current media	Practical activities - imitate how to be like a farmer, banker, etc. Demonstration - Dress	1) Discussions - test societal values internalization 2) Oral and written tests for same function
			& Cultural artefacts, eg. dress, talk, current media	Demonstration - Dress	2) Oral and written tests for same function
6	Devote a considerable time to extensive reading of creative work at his level of experience in Afrikaans	Afrikaner written literature	Supplementary readers - other forms of creative writing	Discovery - learn to find solutions to problems in reading Lecture Practical Activities	1) Discussions - test level of intellectual development 2) Oral tests - Evaluating pupils progress 3) Written tests - Evaluating pupils' skills

C.

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D

ANSWERS TO THE ACHIEVEMENT TEST

1	C	11	B	21	A
2	B	12	B	22	A
3	D	13	E	23	B
4	B	14	B	24	D
5	A	15	C	25	A
6	C	16	A	26	D
7	A	17	E	27	C
8	D	18	A	28	A
9	E	19	C	29	C
10	C	20	B	30	B